DOCUMENT RESUME

ED 332 627 HE 024 590

TITLE	Criteria for the Establishment of New Public Colleges and Universities. Report 6.
INSTITUTION	Florida State Postsecondary Education Commission, Tallahassee.
PUB DATE	16 May 91
NOTE	157p.; Prepared in response to specific appropriation 634B of the 1990 General Appropriations Act, Chapter 90-209, Laws of Florida.
PUB TYPE	Reports - Evaluative/Feasibility (142) -- Reports - Descriptive (141) -- Statistical Data (110)
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	Cost Effectiveness; *Criteria; Enrollment Projections; Feasibility Studies; Higher Education; *Long Range Planning; Organizational Objectives; *Program Implementation; *State Colleges; *State Universities
IDENTIFIERS	*Florida; Threshold Analysis

ABSTRACT

This report outlines the criteria for establishment of new public colleges and universities in Florida between May 1991 and the early part of the 21st Century; the plan emanated from legislative concern about Florida's ability to meet projected future demands for highly educated workers. Issues addressed include goals for degrees granted and number enrolled on a state-wide basis, and minimum size goals for new institutions. A three-phrase planning model for new institutions includes a threshold analysis (participation rate, population base, geographic access), feasibility guidelines (demonstration of need, impact on other systems, cost-effectiveness, policy considerations), and an implementation plan (threshold analysis, feasibility study, implementation plans). An appendix consisting of the complete consultant's report for state-level planning of new colleges and universities in Florida makes up the bulk of this document. A copy of the brief 1990 Legislative Proviso is also appended. (JB)

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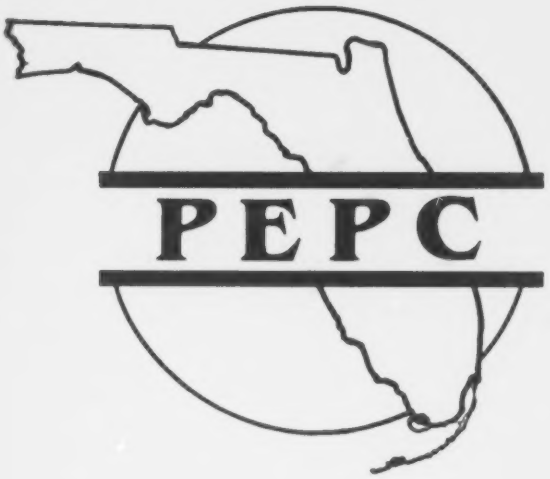

CRITERIA FOR THE ESTABLISHMENT OF NEW PUBLIC COLLEGES AND UNIVERSITIES

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Report and Recommendations of the Postsecondary Education Planning Commission

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1991 - REPORT 6

CS6-0350S

POSTSECONDARY EDUCATION PLANNING COMMISSION

CRITERIA FOR THE ESTABLISHMENT OF NEW PUBLIC COLLEGES AND UNIVERSITIES

Prepared in Response to Specific Appropriation 634B
of the
1990 General Appropriations Act
Chapter 90-209, Laws of Florida

1991 - Report 6

May 16, 1991

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I. INTRODUCTION

General agreement exists that providing opportunity for public higher education is one of the primary functions of a state. Higher education institutions provide the scientists, engineers, teachers, accountants, business entrepreneurs, philosophers, historians, agricultural experts and other professionals necessary for our functioning as a society. Early in the history of the United States the percent of the population continuing through higher education was small. As the country changed from an agrarian to a more industrialized society, however, the increasing complexity of all aspects of our industrial civilization demanded that a larger percent of the population receive a college education. States responded to the twin pressures of that demand plus an increase in population by expanding both the number and size of publicly supported higher education institutions.

The fifty states which comprise the United States have differed in their response to meeting their responsibility of providing higher education opportunities. It is possible to measure and compare both effort and consequences of that effort. It is clear that high correlation exists between the percent of the state's working age population which earns a college degree and average yearly income of citizens of that state, and that the provision of educational opportunity by a state and the subsequent economic welfare of its citizens are inextricably linked.

Florida does not compare favorably with the majority of states in either its effort to provide higher education or the average income of its citizens. Despite a tripling of its population during the past two decades, Florida has not established a new university since 1968 and no community college since 1972. Although the nine state universities are growing in terms of the number of students admitted, for a variety of reasons and in a variety of ways, including higher admission standards, growth has been limited and has not equaled the growth in the number of high school graduates. Hence, in recent years a decreasing percent of applicants has been admitted to the universities. In addition, the free flow of community college graduates to universities is threatened by increasing enrollment restrictions at the upper division. The cumulative result is that Florida is third from last among all states both in number of Bachelor's Degrees granted per one hundred thousand working age population and in the total higher education institutions per one million working age population.

Florida stands at a unique point in its history. A rapidly growing population and a relatively low education level of the working age population coincide with a universal technological revolution as dramatic and far reaching as the industrial revolution. The technological revolution has given rise to new economic power centers. Not only is economic competition growing among nations, but also among states. The technological revolution has resulted in increasing demands for more workers with advanced education. Florida must run a different race than in the immediate past or be doomed to future economic and social mediocrity.

It is a relatively simple matter to gauge Florida's efforts in relation to that of other states, to set educational goals which will enable our state to compete in a changing environment, and to forecast the number of students who must be educated to meet those goals. Realization of the goals combined with a growing college population calls for a gradual, but large increase in the number of students attending higher education institutions. A concomitant increase in the number of those institutions, particularly universities, will be desirable.

A community college or university is such an extraordinary asset to a community that all communities wish for one. Demand can thus be unrestrained. Arriving at decisions as to establishment and location of new institutions solely in reaction to political pressure or influence, as has been the case in the past, is likely to result in a waste of assets, mislocation of institutions and a consequent failure to meet future need. Decisions crucial to the future of Florida need to be guided by criteria which are clear, systematic, economically wise, easily understood and responsive to future needs.

The legislature of the State of Florida in 1990 recognized the necessity of logical and thoughtful planning for additional educational opportunity. It requested the Postsecondary Education Planning Commission to take the lead and to work cooperatively with other higher education groups in recommending to the legislature and the Board of Education appropriate goals and guidelines for implementation of those goals.

The report which follows is designed to assure that in an era of scarce resources, Florida responds to a major challenge to its future well being by using its resources efficiently and wisely. Recommendations take into account the announced conclusion by the Regents and the presidents of Florida's universities that unlimited expansion of enrollments at the existing universities is not desirable. New institutions must be established. This conclusion accords with the state's established policy of reducing geographical barriers to access to educational opportunity. The report:

1. Sets forth goals in terms of the percentage of working age population who should receive university degrees.

2. Phases in realization of those goals.

3. Recognizes that new institutions will need to be established to achieve these goals.

4. Sets forth quantitative criteria which must exist in a region as a prerequisite to a study as to whether a new university or community college should be established[1].

5. Establishes a study and approval process after the quantitative goals are met.

The Commission believes that its report and recommendations provide, for the first time, a sound and systematic basis for making decisions regarding expansion of public higher education opportunity. Such expansion is vital if Florida is to achieve a high level of prosperity for its citizens.

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[1] In February 1991, the Postsecondary Education Planning Commission endorsed a recommendation by the Board of Regents that a new university be established in Southwest Florida. Approval was based on the fact the region met the proposed criteria.

It is with pride that the Commission calls attention to the fact that it believes no state has a similar long range study and plan. It is grateful to the foresight of the legislature and the State Board of Education which enabled this study to be undertaken. The Commission received detailed and unstinting guidance and assistance from a host of individuals and organizations, particularly the Board of Regents and the State Board of Community Colleges. The Commission's Planning Committee, chaired by Dr. Tully Patrowicz and consisting of Dr. Robert Mautz, Mr. Tom Heath, Mr. Robert Taylor, Mrs. Carolyn Wilson, Mr. Tom Murphy of the State Board of Community Colleges, and Mr. Tom Petway of the Board of Regents had the lead responsibility for the development and oversight of the report. A private consulting firm, MGT of America, Inc., played an indispensable role.

II. ISSUES AND RECOMMENDATIONS

Performance Goals For Florida Postsecondary Education

A highly educated citizenry is critical in helping a state maintain its economic competitiveness in today's new world economy. Data clearly show that those states whose citizens have higher levels of education have been, and are being, much more successful in the new world economy. If Florida is to continue to achieve its goal of securing for its citizens a reasonable share of the world's economic success, it must become a national leader in educating its people. Education, now more than ever, is an essential ingredient to Florida's future and the future of each of its citizens.

Education and economic growth are mutually reinforcing. Not only does the economy grow as a state educates more of its people, but as citizens have more income they can afford more education, especially higher education. Thus, as a state's per capita income grows, its education system must also expand to meet the needs of its citizens.

Florida's rapid in-migration of well-trained individuals has facilitated the development of a strong economic base for the state and has heightened its potential to be a world leader. However, when compared with the nation's leading economic growth states of the last 20 years, education of its citizens has not kept pace. Florida is now falling far short in the preparation of its work force. Analyses of Florida's economy by the MGT consultants produced the following national rankings based on the state's primary working age population (w.a.p.) -- those citizens in the 18-44 age group:

- 47th in number of bachelor's degrees granted per 100,000 w.a.p., 37th in master's degree production and 32nd in doctoral degree production;
- 23rd in lower division enrollments per 100,000 w.a.p. with an enrollment rate that is 2 percent below the national average;
- 48th in upper division enrollments with a rate that is 27 percent below the national average;
- 37th in graduate level enrollments with a rate that is 29 percent below the national average;
- 47th in total higher education institutions per 1,000,000 w.a.p.;
- 48th in total (public and private) graduate research universities per 1,000,000 w.a.p.;

These levels of educational access and performance will not be adequate to enable Florida to maintain, much less enhance, its economic competitiveness.

The consultants identified 10 states (California, Connecticut, Delaware, Illinois, Maryland, Massachusetts, Michigan, New Jersey, New York and Vermont) that have had per capita incomes above the national average since 1950. From

Florida's national rankings, it can be concluded that the accessibility of Florida's colleges and universities is significantly below that of states whose economies are performing well, that both the high economic growth states and the consistent economically strong states produce dramatically more degrees at all degree levels per 100,000 w.a.p. than Florida, and that Florida's higher education participation (enrollment) rates are particularly low.

Higher education is a critical determinant in creating a workforce that will enable Florida to successfully compete in the world economy and to maintain an above average quality of life for its citizens. The Commission recommends the following higher education goals as a basis for all higher education planning, including planning for new institutions.

Recommendation:

1. **Degree Goal: By the year 2020, Florida will be annually granting degrees per 100,000 working age population (w.a.p.) at the bachelor's, master's, first professional and doctoral levels that equal or exceed the average of the 10 states with the most successful economies defined as those states whose per capita income has been consistently above the national average since 1950.**

To achieve its higher education degree productivity goals, Florida will have to increase its overall higher education participation rates, measured in enrollments per 100,000 working age population. Accordingly, the following participation rate goal is recommended:

Recommendation:

2. **Enrollment Goal: By the year 2015, Florida will annually enroll students at the lower, upper, first professional and graduate levels on a per 100,000 w.a.p. basis that equals the average of the 10 states with consistently strong economies.**

New Institutions

To attain the recommended higher education goals for Florida, institution size considerations must remain central to planning for the State's higher education delivery system. As part of a statewide plan, future growth at existing institutions should not occur randomly, and planning for new institutions should focus on cost effectiveness and efficiency.

In the community college system, population growth, particularly in existing multiple county districts, will be a major factor in determining the need for new colleges. To prevent the overlapping of an existing college's region by a new institution, a single county should be retained as the minimum size of a community college district, and each county should continue to be assigned to a single community college district.

In the state university system, planning for expansion should emphasize providing the undergraduate education opportunities that are not otherwise available to the residents of the underserved region. The academic programs should be designed to meet the workforce needs of business and industry in the region. Future enrollment growth at existing universities with extensive graduate programs and

research capabilities should focus primarily on those types of programs, as the State has already invested in high cost laboratories, equipment and faculty necessary to support such programs. Additional graduate education and new graduate degree programs in the system should be carefully considered and approved only following the confirmation of a pressing state or regional need and the assurance that such programs are of high quality.

Recommendation:

3. **A new public postsecondary institution should emphasize low cost, high demand programs that will serve large numbers of students with minimal needs for costly, specialized resources.**

Minimum Size Goals For New Institutions

Based on an extensive analysis of indirect costs as a function of enrollment growth at U.S. community colleges and regional universities, the Commission recommends the following size goals which represent the minimum enrollment necessary for new institutions to operate in a cost effective manner.

Recommendations:

4. **A new community college must have the potential of achieving an FTE enrollment of 1,500 FTE students within 5 years of the opening of the institution and 3,400 within 10 years of the opening of the institution.**

5. **A new university must have the potential of achieving an FTE enrollment of 2,600 FTE students within 5 years of the opening of the institution and 5,600 within 10 years of the opening of the institution.**

These recommendations are based on the Florida definition of student credit hours per FTE (undergraduate student - 40 SCH and graduate student - 32 SCH). Using the FTE definition that is used nationally, the numbers are 2,000 FTE (within 5 years) and 4,500 FTE (within 10 years) for the Community College System and 3,500 FTE (within 5 years) and 7,500 FTE (within 10 years) for the State University System. All figures are rounded to the nearest hundred.

The Planning Process For New Institutions

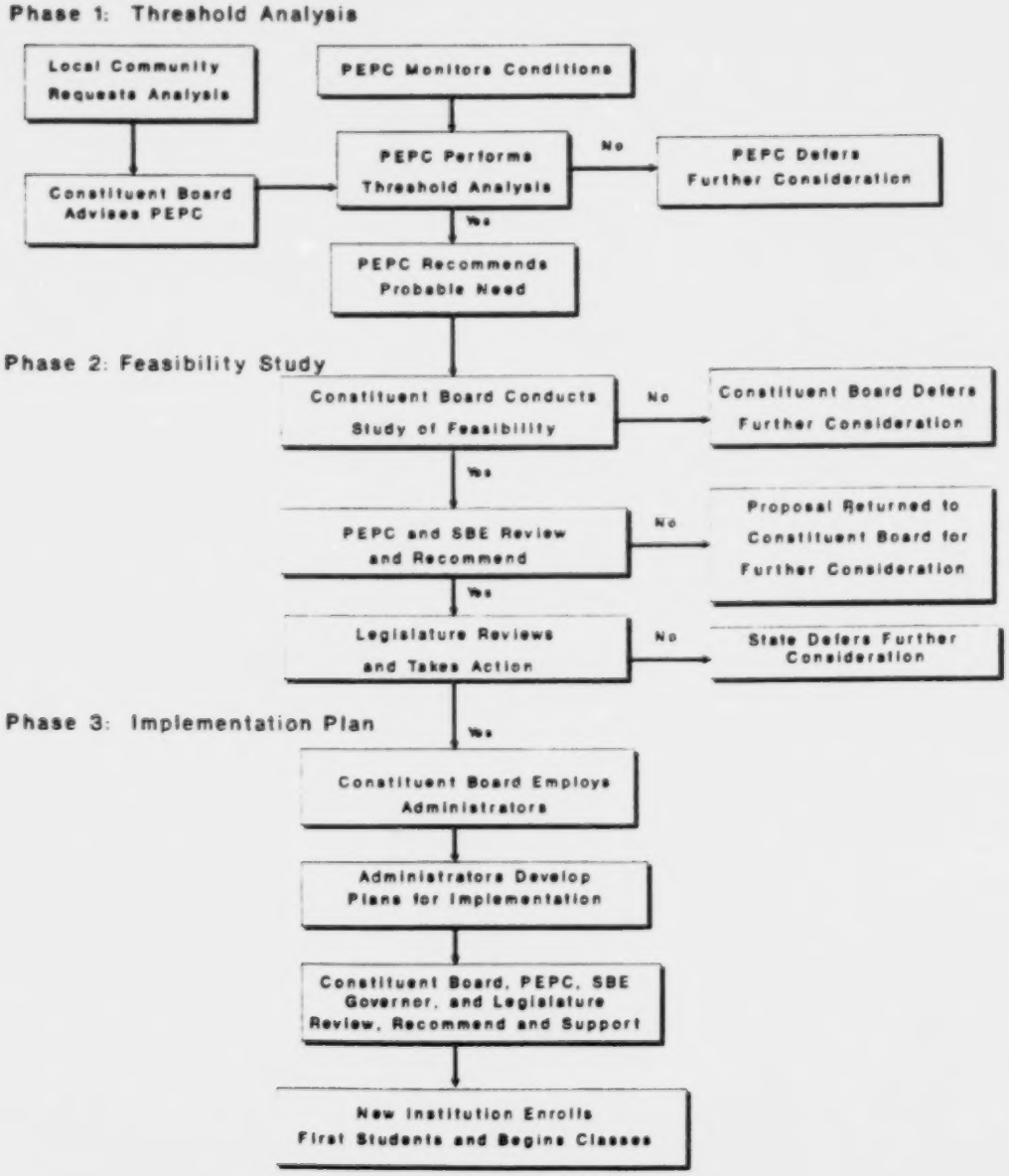
A three-phase planning process for new public postsecondary institutions is recommended that will provide for screening of requests for a new institution, analyzing of the feasibility and cost-effectiveness of the expansion proposal and reviewing implementation plans for the recommended institution. Figure 1 shows how the three phases combine to form a comprehensive evaluation and planning process.

Recommendation:

6. The establishment of new public colleges and universities should occur only through a formal three-phase process that includes a threshold analysis to determine probable need, a feasibility study to determine the cost-effectiveness of the proposed new institution and a detailed implementation plan for the development of the institution.

FIGURE 1

OVERVIEW OF THREE-PHASE INSTITUTIONAL PLANNING MODEL



Phase 1: Threshold Analysis

The threshold analysis relies heavily on statistical analyses of demographic and educational performance data to assess the potential need for a new institution. A finding of "probable need" will indicate that conditions are sufficiently promising in the region to merit investment by the community and appropriate state-level agencies in a more detailed feasibility analysis. In this planning process, a community college region is defined at a minimum as a single county and a region for a new university is defined as a geographic territory normally consisting of multiple contiguous counties.

Recommendation:

7. **To determine the probable need for a new community college or university in a region of the State, the Phase 1 Threshold Analysis should address the following criteria: college participation rate, population base and geographic access. Other factors specific to a region that may assist in the determination of need should be considered by the constituent board.**

As Figure 2 shows, threshold levels are established for the first three criteria that will identify "probable need."

College Participation Rate

An important step in Florida's efforts to meet the higher education performance goals recommended in this report will be to identify regions of the State with low participation rates. This criterion is a key indicator in determining need for a new institution, particularly for a region that has a participation rate below the threshold level and that does not have an existing site that offers postsecondary education programs that meet the needs of the region's residents.

Based on the analysis of education need, the Commission recommends the following participation rate threshold levels for the two public postsecondary sectors.

Recommendations:

8. **A proposed district for a new community college should have an annual lower division headcount enrollment rate that is below 8,400 per 100,000 working age population (ages 18-44).**

9. **A region to be served by a new university should have an annual headcount enrollment rate per 100,000 working age population that is below:**

   - **2,400 at the upper division level**
   - **1,700 at the graduate and professional level**

FIGURE 2

PHASE 1 - CRITERIA FOR DETERMINING THE POTENTIAL NEED FOR A NEW INSTITUTION IN A REGION[1]

PHASE 1 CRITERIA	INSTITUTIONAL TYPE	
	COMMUNITY COLLEGE	STATE UNIVERSITY
Substandard College Participation Rate		
Regional College Participation Rate Per 100,000 Working Age Population (W.A.P.) at Lower Level is Less Than ____	8,400	8,400[2]
Regional College Participation Rate Per 100,000 W.A.P. at Upper Level is Less Than ____	N/A	2,400
Regional College Participation Rate Per 100,000 W.A.P. at Graduate Level is Less Than ____	N/A	1,700
Adequate Population Base		
Current Regional Population Aged 18-44 is Greater Than ____	60,000	200,000
Projected Population Aged 18-44 Five Years After Proposed Institution's Opening Date is Greater Than ____	67,000	231,000
Lack of Geographic Access		
Miles From Main Campus of Similar Entity to Location of Proposed Institution is More Than ____	30	80
Minutes From Main Campus of Similar Entity to Location of Proposed Institution is More Than ____	45	90
Other Extenuating Circumstances		
Predecessor Delivery Systems in the Community Have Been Successful		
Appropriate Programs Have Not Been Available in the Community		

[1] Region for a state university is defined as a geographic territory normally consisting of multiple contiguous counties. Region for a community college is defined at a minimum as a single county.

[2] The participation rate criteria for universities should address primarily upper level undergraduate and graduate instruction.

Population Base

Florida has been experiencing rapid demographic growth over the last forty years. During the 1980s, the State's population increased 34 percent, and the population is projected to increase over 21 percent during this decade. More specifically, the State's 15-44 year-old group, the age cohort from which most college students are drawn, is growing at more than double the projected statewide rate of growth in Southwest Florida (Charlotte, Collier, Glades, Lee), the East Central Coast area (Martin, Osceola, St. Lucie), and the West Central Coast area (Citrus, Hernando, Marion, Pasco). The greatest increase in the number of residents within these age groups is projected to occur in the more densely populated region of Southeast Florida (Broward, Dade, and Palm Beach Counties).

An important consideration in the analysis of the threshold criteria for determining the potential need for a new institution in a region is a minimum population base within the region. A region must have a sufficiently large population base to generate enough enrollments to establish a new, economically efficient institution and to achieve the institutional size goals that are recommended in this report. Based on an analysis of existing enrollment patterns of Florida's community colleges and universities (Appendix A), the Commission recommends the following population threshold levels for the two sectors.

Recommendations:

10. **Community College System - a proposed new district for a community college must have a current population (ages 18-44) of 60,000 and an expected population (18-44) of 67,000 within five years after the new institution opens.**

11. **State University System - a region to be served by a new university must have a current population (ages 18-44) of 200,000 and a projected population (ages 18-44) of 231,000 within five years after the new institution opens.**

Geographic Access

Florida's rapid population growth and demand for education services has heightened the need for greater access to college and university programs. The community colleges and universities have attempted to respond to this need by expanding enrollments at existing campuses and by establishing an extensive network of new campuses, centers and instructional sites. It has been nearly twenty years, however, since Florida established a free-standing community college or university despite the near doubling of its population. The State has fallen behind in its efforts to provide access for qualified residents to educational programs at all levels.

One reason to establish a new institution emanates from the need to provide postsecondary education opportunities to students who are placebound and cannot be served by the existing delivery entities in their region. Driving distance and commuting time measures for a proposed new institution will help to identify regions of the State where there is a need for additional postsecondary delivery sites. The following threshold levels, measured from the main campus of an existing institution, are recommended for the two sectors. Analysis of these measures should consider the driving distance and time radii for both the new institution and existing, adjacent institutions to avoid duplication of service.

Recommendations:

12. **The threshold level for geographic access to a proposed new community college should be established at 30 miles driving distance and 45 minutes driving time from a campus of a community college.**

13. **The threshold level for geographic access to a proposed new university should be established at 80 miles driving distance and 90 minutes driving time from the main campus of a university.**

Other Factors

Although population, driving time and distance and existing enrollments are all critical, objective criteria, the consideration of less quantifiable information may also assist in the determination of need. In this regard, communities that fall below one or more of the other threshold levels will have an opportunity to present additional information to further define student demand for specific programs or to identify business and industry educational needs in the region.

Phase 2: Feasibility Guidelines

Following the finding of "probable need" for a new institution, the constituent board will coordinate a feasibility study that will include more specific projections of potential demand in the region for a new institution both in terms of the probable numbers of students and in the types and levels of academic programs that are needed. If there are existing postsecondary delivery mechanisms in the region of the proposed new institution, the study should include a detailed analysis of the impact of the new institution on the current service provider. The feasibility analysis will enable the State to evaluate whether the proposed institution will effectively meet the specific postsecondary education needs of the region.

Recommendation:

14. **The Phase 2 Feasibility Study should include the following four components: a demonstration of need, the consideration of the impact on other delivery systems, an analysis of the cost-effectiveness of the proposed institution and other policy considerations.**

Demonstration of Need

The feasibility study should include an analysis of how the proposed institution is projected to meet or exceed the recommended minimum FTE enrollment size goals. The study should also describe how the institution will serve populations of the region that historically have been underserved by existing colleges and universities, and how the institution will respond to local economic needs. A feasibility study conducted by the constituent board should identify the needs of placebound students in the region and determine if those needs can be adequately met by existing institutions. The study should also show evidence of broad community support for the new institution.

Impact on Other Delivery Systems

The feasibility study should include an analysis of how the proposed institution will affect the existing community colleges and public and private universities in the region and in adjacent regions. If the proposed institution will supplant an existing branch or center, the study should address transition plans for moving to separate institution status. A proposed university should address plans for coordination of programs with the local community college, and the college should have an opportunity to review and comment on the university's plans for lower division programs.

Cost-Effectiveness of the Proposed Delivery Model

Plans for the proposed institution should encompass the full range of educational delivery alternatives. As noted in the **Master Plan**, educational computer and telecommunications technology offers new instructional possibilities and gives greater access to a variety of postsecondary education opportunities. These technologies should be increasingly utilized for the delivery of postsecondary programs, particularly to underserved areas.

A critical concern will be to ensure that the potential institution, after its initial years of operation, can operate at least as efficiently as the typical institution in the system that offers similar programs. Preliminary facility plans should describe the adequacy of the site size for the planned program along with site acquisition and development costs.

Other Special and Policy Considerations

The feasibility study should describe how the proposed institution complies with state policies for higher education, such as Florida's commitment to the Two-Plus-Two system, and with the constituent board's master plan and the **Master Plan for Florida Postsecondary Education.**

Phase 3: Implementation Plan

Following State approval to establish a new institution, the constituent board should coordinate the development of a detailed program, staffing, facilities and financial plan for the institution. This planning and development process will normally take several years and will be initiated with the appointment of an administrative team for the institution. The constituent board will closely monitor the planning activities to ensure that plans are consistent with the intended mission of the institution and with any specific directives that were issued as part of the campus approval process.

Responsibilities and Procedures

Threshold Analysis Roles and Activities

As part of its **Master Plan** activities every five years, the Commission should carry out the following responsibilities:

- establish state performance goals for postsecondary education on a continuing, long-term basis; and

- review specific opportunities for the creation of a new college or university and to determine whether probable need exists.

Recommendation:

15. **The Postsecondary Education Planning Commission should have the primary responsibility for the Phase 1 threshold analysis in the planning process to recommend to the State Board of Education probable need for a new public college or university.**

The Commission's **Master Plan** activities should include an assessment of how Florida is performing in comparison to other states on identified educational performance measures. The Commission should also assess the performance of each of Florida's 67 counties to determine whether all regions of the State are providing appropriate types and levels of access to postsecondary programs. When the Commission identifies a region for which there is a probable need for additional postsecondary delivery sites, it should invite the appropriate constituent board to undertake a feasibility study.

A request for the analysis of the threshold criteria of a specific region of the State by the Commission may also emanate from a community group or from a constituent board. A flow chart of the Phase 1 activities appears in Figure 3.

Feasibility Analyses Roles and Activities

The appropriate constituent board, the Board of Regents or the State Board of Community Colleges, should have lead responsibility for the Phase 2 feasibility study according to planning activities outlined in its master plan. Representatives of the designated community group will be expected to play a major role in advising the constituent board during the feasibility study.

The Commission will review the results of the feasibility study according to the guidelines and the policies and goals contained in the **Master Plan for Florida Postsecondary Education.** Following review, the Commission will recommend action to the State Board of Education. A flow chart of feasibility study activities appears in Figure 4.

FIGURE 3

FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

Phase 1: Threshold Analysis

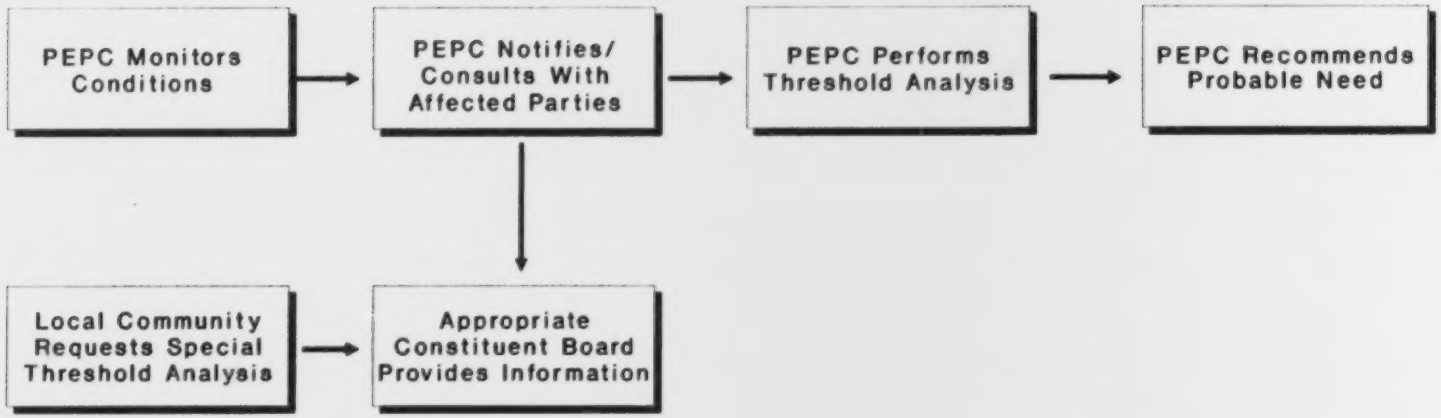
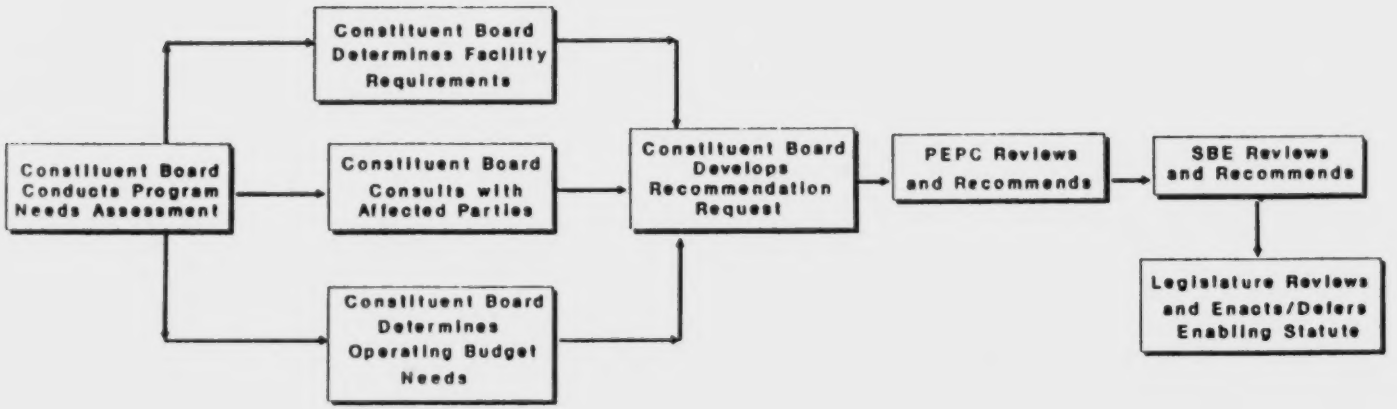

PEPC Monitors Conditions
PEPC Notifies/ Consults With Affected Parties
PEPC Performs Threshold Analysis
PEPC Recommends Probable Need
Local Community Requests Special Threshold Analysis
Appropriate Constituent Board Provides Information

FIGURE 4

FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

Phase 2: Feasibility Study


Constituent Board Conducts Program Needs Assessment
Constituent Board Determines Facility Requirements
Constituent Board Consults with Affected Parties
Constituent Board Determines Operating Budget Needs
Constituent Board Develops Recommendation Request
PEPC Reviews and Recommends
SBE Reviews and Recommends
Legislature Reviews and Enacts/Defers Enabling Statute

Implementation Planning Roles and Activities

The appropriate constituent board should coordinate the development of a detailed program, staffing, facilities and financial plan for the proposed institution. For a new community college, the Governor will appoint a local board of trustees for the new institution. The State Board of Community Colleges will work with the board of trustees and administrators of the college that already serves the community to develop plans for the new institution. For a new university, the Board of Regents will appoint the new administrative team and will monitor all aspects of the planning and development of the institution. This planning process will take several years and, in each case, the new administrative team will have a lead role in developing detailed program plans based on the results of the needs assessment conducted during the feasibility study.

The Commission will focus on the review of new budget proposals for the new institution and will forward its budget recommendations to the State Board of Education. Flow charts of implementation planning for community colleges and for universities appear in Figures 5 and 6.

Planning for New Centers and Branch Campuses

In addition to the development of criteria for the establishment of new institutions, the Commission examined current procedures for the review and approval of proposals for new campuses and centers of existing institutions. The procedures for the designation of new campuses and centers should be a part of a coordinated planning process for the development of the State's postsecondary delivery system.

Recommendation:

16. **The principles of the three-phase planning process recommended in this report should be adopted by the Board of Regents and the State Board of Community Colleges as the framework to plan and develop additional off-campus postsecondary delivery sites. This planning process can also assist the State Board of Community Colleges in the redrawing of college district boundaries.**

FIGURE 5

FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

Phase 3: Implementation Plan for Community Colleges

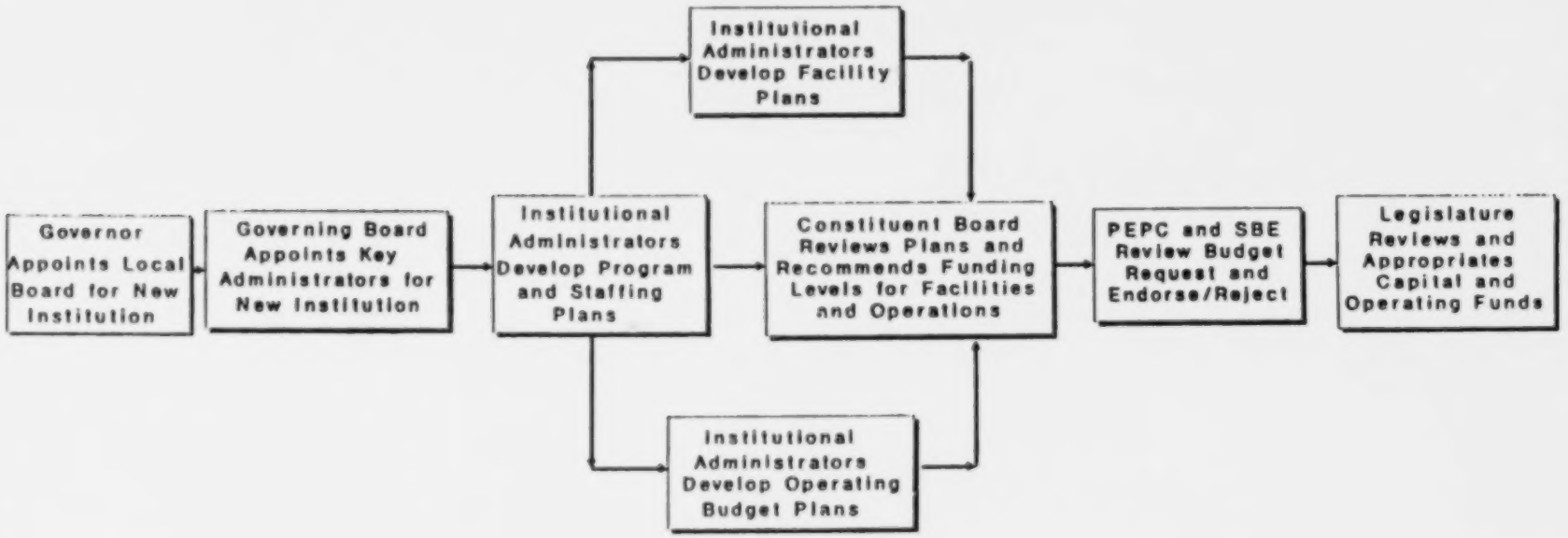
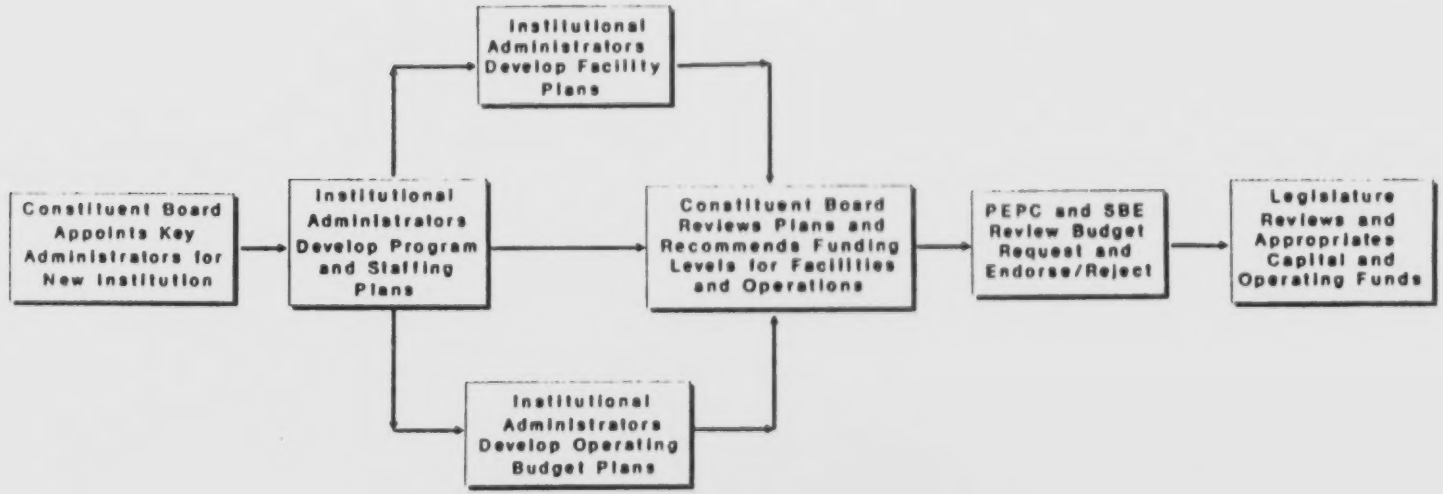

Governor Appoints Local Board for New Institution
Governing Board Appoints Key Administrators for New Institution
Institutional Administrators Develop Program and Staffing Plans
Institutional Administrators Develop Facility Plans
Institutional Administrators Develop Operating Budget Plans
Constituent Board Reviews Plans and Recommends Funding Levels for Facilities and Operations
PEPC and SBE Review Budget Request and Endorse/Reject
Legislature Reviews and Appropriates Capital and Operating Funds

FIGURE 6

FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

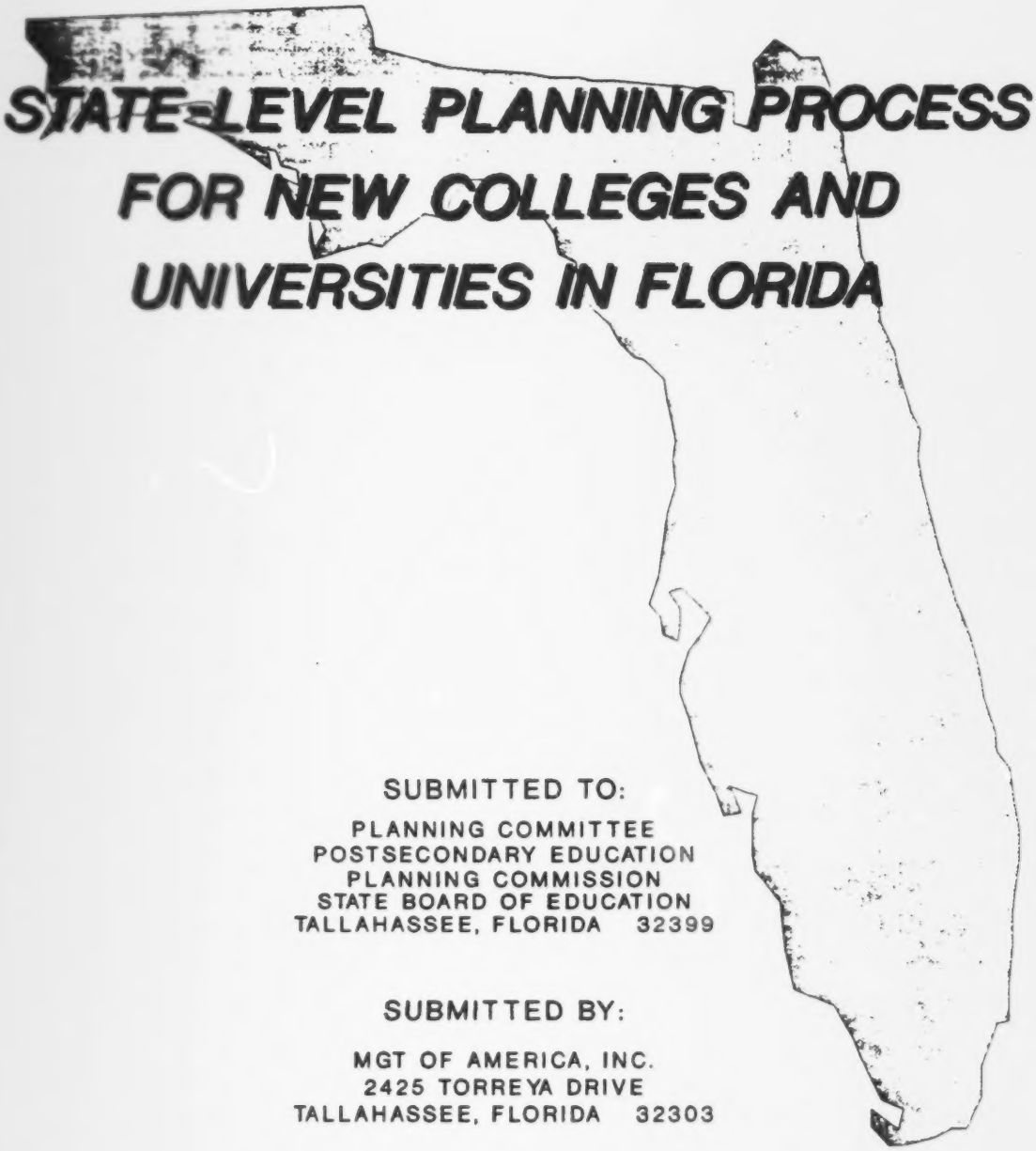
Phase 3: Implementation Plan for Universities


Institutional Administrators Develop Facility Plans
Constituent Board Appoints Key Administrators for New Institution
Institutional Administrators Develop Program and Staffing Plans
Constituent Board Reviews Plans and Recommends Funding Levels for Facilities and Operations
PEPC and SBE Review Budget Request and Endorse/Reject
Legislature Reviews and Appropriates Capital and Operating Funds
Institutional Administrators Develop Operating Budget Plans

APPENDIX A

Consultant's Report: State-Level Planning Process for New Colleges and Universities in Florida

STATE-LEVEL PLANNING PROCESS FOR NEW COLLEGES AND UNIVERSITIES IN FLORIDA



SUBMITTED TO:

PLANNING COMMITTEE
POSTSECONDARY EDUCATION
PLANNING COMMISSION
STATE BOARD OF EDUCATION
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March 25, 1991

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EXECUTIVE SUMMARY

STATE-LEVEL PLANNING PROCESS FOR
NEW COLLEGES AND UNIVERSITIES IN FLORIDA

EXECUTIVE SUMMARY

Background

As a result of Florida's continuing population growth and the citizenry's recognition of the increasing importance of postsecondary education to their quality of life, pressure has mounted in recent years for greater access to college and university programs. Florida has not created a new college or university since 1972 even though the state's population has approximately doubled over that period of time. Instead, existing community colleges and state universities have attempted to serve the growing need through expanding enrollments at existing institutions and establishing an extensive network of campuses, centers and instructional sites.

During the past several years, leaders in several communities across the state have mounted organized efforts to establish a new state-supported college or university in their area. To respond to the growing demand for additional access to higher education in an orderly and cost-effective manner, the Florida Legislature directed the Postsecondary Education Planning Commission (PEPC) to develop criteria for establishing new colleges and universities. As part of its response to the legislative mandate, PEPC contracted with MGT of America, Inc., to review Florida's higher education delivery system and recommend a planning process which included criteria to assess the need for new institutions.

In this report, MGT recommends specific higher education goals for the state, outlines a recommended comprehensive planning process for new colleges and universities, recommends measurable criteria to be used in assessing the potential need for new institutions, and recommends a set of general guidelines for the Board of Regents or the State Board of Community Colleges to follow in determining the feasibility of proposed institutions.

Importance of Postsecondary Education to Florida's Future

The importance of an educated citizenry has long been recognized. Well-educated people generally are healthier, more prosperous, better adjusted and more effective participants in democracy. Due to the evolution of a new world economy, an educated population also has become a major economic asset for state and local communities. Simply stated, most of the new, well-paying jobs being created will require a well-educated work force.

Given that Florida has established goals to increase state per capita income levels and maintain a high quality of life for its citizens, a strong postsecondary education system that provides reasonable access to programs at all levels is of critical importance. Currently, the state ranks 48th nationally in the total number of higher education institutions per capita (working age population), 47th in bachelor's degree production per capita, 37th in master's degree production, and 32nd in doctoral degree production. This level of performance will not be adequate for the state and its citizens to meet their economic goals.

Performance Goals for Florida Postsecondary Education

To secure for its citizens a high quality of life in the new world economy, Florida must prepare itself to be highly competitive with other world economic players. Hence, we recommend that Florida adopt the following higher education goals as a basis for all higher education planning, including planning for new institutions:

Ultimate Degree Goal: By the year 2020, Florida will be annually granting degrees per 100,000 working age population (w.a.p.) at the bachelor's, master's, first professional and doctoral levels that equal or exceed the average of the 10 states with consistently strong economies. (defined as those states, excluding Alaska and Nevada, whose per capita income has been consistently above the national average since 1950)

Based on currently available data, Florida's goal for the year 2020 is to be granting at least the following number of degrees per 100,000 w.a.p. per year:

Bachelor's	948
Master's	321
First Professional	74
Doctorate	36

Intermediate Degree Goals: To accomplish the above goal, Florida will achieve the following percentages of the ultimate goals by the targeted years per w.a.p.:

TARGET YEAR	PERCENT OF ULTIMATE GOAL			
	BACHELOR'S	MASTER'S	DOCTORAL	1ST PROF
2020	100.0%	100.0%	100.0%	100.0%
2015	95.0%	93.5%	94.5%	93.5%
2010	90.0%	87.0%	89.0%	87.0%
2005	85.0%	80.5%	83.5%	80.5%
2000	80.0%	74.0%	78.0%	74.0%
1995	75.0%	67.5%	72.5%	67.5%
1990 (EST)	70.0%	61.0%	67.0%	61.0%

Ultimate Enrollment Goal: By the year 2015, Florida will annually enroll students at the lower, upper, first professional and graduate levels on a per 100,000 w.a.p. basis that equals the average of the 10 states with consistently strong economies.

Based on currently available data, Florida's goal for the year 2015 is to be enrolling the following headcount enrollments per 100,000 w.a.p. per year:

Lower	8,417
Upper	2,410
Professional	286
Graduate	1,681

Intermediate Enrollment Goals: To accomplish the above goal, Florida will achieve the following percentages of its ultimate participation rate goals by the targeted years:

TARGET YEAR	PERCENT OF ULTIMATE GOAL			
	LOWER	UPPER	1ST PROF.	GRADUATE
2020	100.0%	100.0%	100.0%	100.0%
2015	100.0%	100.0%	100.0%	100.0%
2010	96.4%	92.4%	90.4%	91.8%
2005	92.8%	84.8%	80.8%	83.6%
2000	89.2%	77.2%	71.2%	75.4%
1995	85.6%	69.6%	61.6%	67.2%
1990 (EST)	82.0%	62.0%	52.0%	59.0%

Minimum Size Goals for New Institutions

An analysis of 435 U.S. community colleges and 250 U.S. regional universities (non-graduate/research universities) revealed that overhead costs, as a percent of total institutional costs:

- declines significantly (from about 52% to 46%) until a community college's enrollment reaches about 4,500 FTE students. After 4,500 students, the overhead cost percentage remains level.
- declines significantly (from about 52% to about 43%) until a university has about 7,500 FTE students. After 7,500 students, the overhead costs continue to decline, but at a much slower rate.

For this analysis, we used the nationally accepted definitions of FTE student as 30 undergraduate student credit hours and 24 graduate credit hours.

Based upon the above findings, we recommend that Florida adopt the following institutional size goals for new institutions:

- A new community college must have the potential of achieving an FTE enrollment of 2,000 FTE students within 5 years and 4,500 within 10 years. (Using the recently adopted Florida definition for FTE, these numbers equate to 1,500 and 3,375, respectively.)

- A new university must have the potential of achieving an FTE enrollment of 3,500 FTE students within 5 years and 7,500 within 10 years. (Using the recently adopted Florida definition for FTE, these numbers equate to 2,625 and 5,625, respectively.)

Three-Phase Planning Process for New Institutions

We recommend a three-phase planning model for the development of new colleges and universities. The three-phase model will enable all potential communities to be evaluated and will permit resources to be directed to the most promising opportunities.

Within the context of evaluating the need for, and location of, new institutions to meet the state's higher education goals, we recommend that the state follow a three-phase planning process consisting of:

Phase 1 - A threshold analysis to determine whether a region has a "probable need" for a new institution

Phase 2 - A feasibility study to determine if, and under what conditions, a new institution would be a cost effective decision for the state

Phase 3 - The development of a detailed program, staffing, facilities and financial plan.

Exhibit 1 shows how the three phases would combine to form a comprehensive evaluation and planning process.

Phase 1: Threshold Analysis Criteria

For the purpose of the threshold analysis, we recommend that a region be defined as follows:

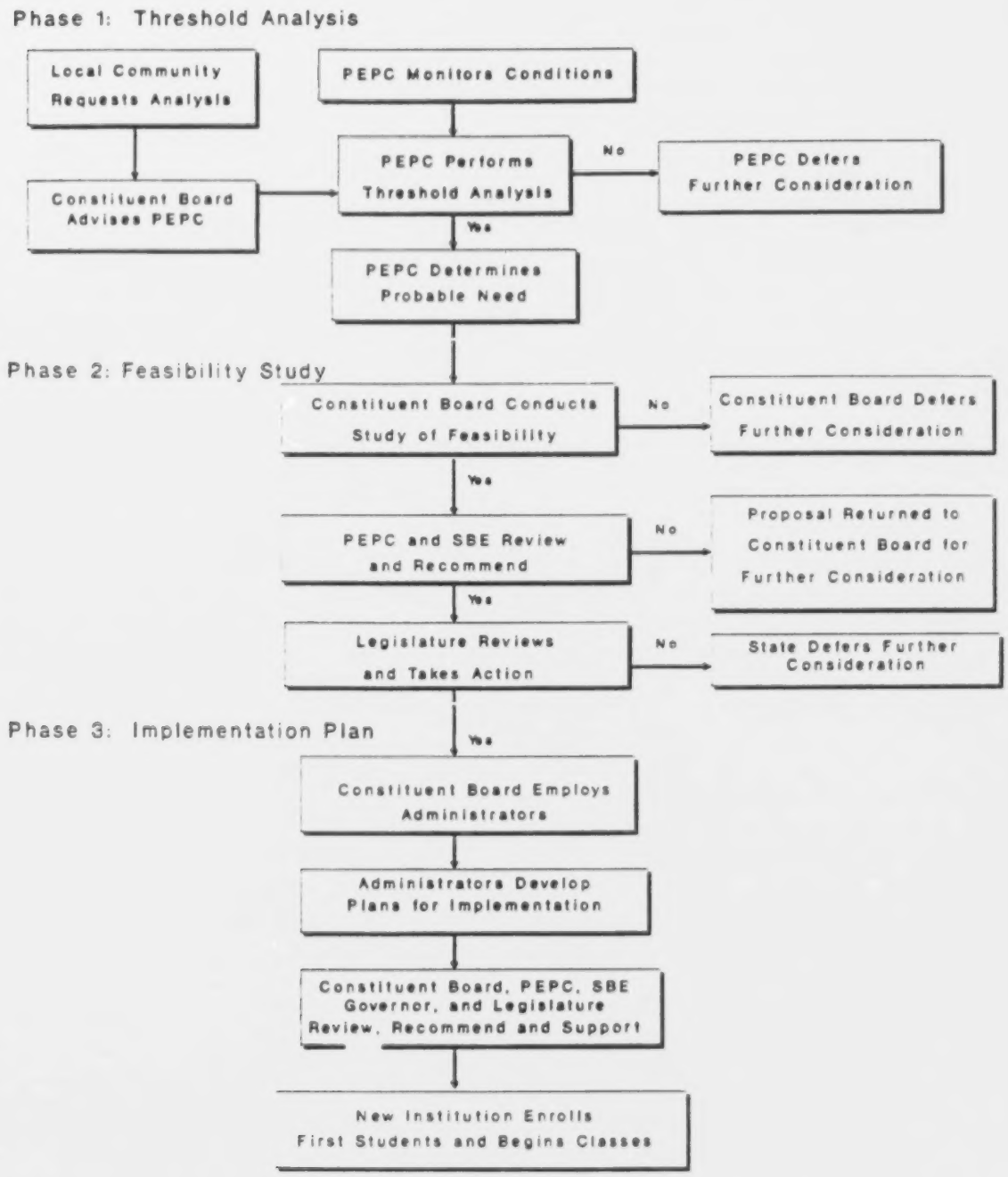
- Community College Region - A geographical area within a 45 minute driving time radius of the proposed location of a new college provided that the proposed location is at least 60 minutes away from the nearest separate community college.

- University Region - A geographical area within a 60 minute driving time radius of the proposed location for a new university provided that the proposed location is at least 90 minutes away from the nearest university.

Based upon the recommended state higher education goals, the economies of scale of institutional operations, and the need to maintain a highly efficient

EXHIBIT 1

OVERVIEW OF THREE-PHASE INSTITUTIONAL PLANNING MODEL



state higher education delivery system, we recommend the criteria presented in Exhibit 2 for establishing the "probable need" for a new institution within a region.

Phase 2: Feasibility Study

We recommend that the Board of Regents or the State Board of Community Colleges, as appropriate, oversee the development of the feasibility studies for any proposed new institutions meeting the Phase 1 threshold criteria. The recommended guidelines for the feasibility study combine quantitative information and professional judgement. The guidelines include:

- a demonstration of need -- will the proposed institution reach a minimum efficient size? will it provide access for historically under- served populations? does it have strong community support? how will it respond to local economic needs?

- consideration of impact on other delivery systems -- how will the proposed institution affect community colleges that already serve the area? state universities? independent colleges and universities?

- analysis of the cost-effectiveness of the proposed institution -- will the program mix stress high demand, low cost programs? can the institution be operated at a cost that is in line with other similar institutions? can local educational needs be met adequately with a lower cost delivery model? is an adequately sized site available at a reasonable cost?

- other considerations -- is the proposal consistent with the Commission's Master Plan? does it reinforce Florida's "two + two" concept? are concerns raised during the threshold analysis addressed? should other factors be considered?

We believe that this planning process for new colleges and universities will enable the state to expand access to higher education for its citizens in an orderly, cost-effective manner.

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EXHIBIT 2
PHASE 1 CRITERIA FOR DETERMINING THE POTENTIAL NEED FOR A NEW INSTITUTION IN A REGION*

PHASE 1 CRITERIA	INSTITUTIONAL TYPE	
	COMMUNITY COLLEGE	STATE UNIVERSITY
Substandard College Participation Rate		
Regional College Participation Rate At Lower Level Is Less Than ___ Per 100,000 Working Age Population (W.A.P.)	8,417	
Regional College Participation Rate At Upper Level Is Less Than ___ Per 100,000 W.A.P.	NA	2,410
Regional College Participation Rate At Graduate Level Is Less Than ___ Per 100,000 W.A.P.	NA	1,681
Adequate Population Base		
Current Regional Population Aged 18-44 Is Greater Than ____	60,000	200,000
Projected Population Aged 18-44 Five Years After Institution's Opening Date Is Greater Than ___	67,000	231,000
Lack of Geographic Access		
Location of Institution Is More Than ___ Miles From Main Campus of Similar Entity	30	80
Location of Institution Is More Than ___ Minutes From Main Campus of Similar Entity	45	90
Other Extenuating Circumstances		
Predecessor Delivery Systems In The Community Have Been Successful		
Appropriate Programs Have Not Been Available In The Community		

*Region for a state university is defined as the geographical area within a 1-hour driving radius around the proposed location of a new institution. Region for a community college is defined as the home county of the proposed location of a new institution.

1.0 INTRODUCTION

1.0 INTRODUCTION

Throughout the history of the United States, Americans have placed great importance on providing educational opportunity for their youth. Their belief in the value of education has been founded on many factors, including the need to prepare their youth for effective citizenship and productive employment.

As the demands of daily life and the economy grew more complex, the need for near universal higher education became widely accepted. In the twenty years between the close of World War II and the arrival of the baby boom generation on college and university campuses, many states adopted policies and goals that were designed to provide access to higher education for all eligible citizens.

1.1 Recent Issues Concerning Increased Access

In the early part of the 1990s, the demand for access to publicly sponsored postsecondary education has intensified, especially in the faster growing states. While all of the earlier reasons for broad educational opportunity still apply, new types of pressures are mounting on the states to provide even greater geographic access:

- local leaders contend that locating a state college or university in their community is vital to their economic future;
- various historically disadvantaged groups ascribe their continuing low participation rates in higher education to the costs inherent in leaving home to attend college;
- working adults want the opportunity to complete their undergraduate education and/or continue their studies at the graduate level on a part-time, after-work basis.

These and other groups believe that the creation of new state colleges and universities offers the best answer to their needs.

The merits of the above cases notwithstanding, a number of factors combine to mute the demands for new state-operated institutions:

- officials at existing colleges and universities seek to balance the demands for greater access with those for quality improvement;
- independent colleges and universities often resist the creation of new state institutions in communities that they historically have served;
- given the significant expenditures required to create new institutions, state officials want an orderly process for campus expansion to be sure that state funds are being used wisely.

These and other factors have prevented the creation of a new community college or state university in Florida in almost twenty years despite the near doubling of the state's population.

1.2 Requirements for the Study

During the past several years, citizen groups in several Florida cities, including Fort Myers, Fort Pierce and Fort Lauderdale, have mounted organized efforts to gain a new state university for their communities. In response to these efforts and in anticipation of even more requests in the coming years, the Florida Legislature directed the Postsecondary Education Planning Commission (PEPC) to develop criteria for establishing new colleges and universities in the state. As part of its response to the legislative mandate, PEPC contracted with MGT of America, Inc., a national education consulting firm, to develop a recommended planning framework that will both:

- respond to Florida's population growth
- result in the development of a cost effective state higher education delivery system.

This report, prepared by MGT, proposes an institutional planning framework that the state can use in determining where, when and how to create new institutions of higher education. It outlines procedures to be followed, roles for participants to play and -- in direct response to the legislative proviso -- quantitative criteria to be used in evaluating the need for new colleges and universities.

1.3 Missions of New Institutions

The planning process described in this report is based on the need to provide greater access to programs with broad appeal. The criteria and procedures are designed to determine the need for institutions that will emphasize the offering of high demand, low cost programs. The process does not envision the creation of another graduate research university in Florida in the foreseeable future.

2.0 BACKGROUND

2.0 BACKGROUND

2.1 Growth of Higher Education in the United States and Florida

Higher education has expanded significantly in the United States. Since the first public university was created about 200 years ago, the enterprise has grown to approximately 1600 public institutions nationally. Exhibit 2-1 provides a comparison of the growth in the number of public and private institutions in the United States, the 15 states in the southern region, and Florida between 1964 and 1988. As can be seen, 1,412 institutions were established throughout the nation during this 24-year period including:

- 792 institutions in the public sector
- 221 public institutions in the southern region
- 11 public institutions in Florida

Between 1964 and 1988, the total number of public institutions of higher education in the United States grew by 99 percent or practically doubled, whereas the number of public institutions in Florida increased by 42 percent. It is important to add that by the end of the 1960s, all state universities and all but one public community college in Florida had been established; in contrast, public institutions nationally and in the southern region continued to increase in number. The dates for the creation of new colleges and universities in Florida cited in this chapter are the actual dates when these institutions were established by the Florida Legislature.

EXHIBIT 2-1

NUMBER OF INSTITUTIONS OF HIGHER EDUCATION IN THE UNITED STATES, THE SOUTHERN REGION AND FLORIDA

Fall 1964 and 1988

REGION	1964			1988		
	PUBLIC	PRIVATE*	TOTAL	PUBLIC	PRIVATE*	TOTAL
United	799	1,376	2,175	1,591	1,996	3,587
SREB States	369	220			530	1,120
Florida	26	27			57	94

* INCLUDES BOTH TWO AND FOUR-YEAR INSTITUTIONS OFFERING DEGREES AND CERTIFICATES

SOURCE: Southern Region Educational Board (SREB), 1991.

Growth in headcount enrollment during this same period is provided in exhibit 2-2. During the 24 years, headcount enrollment increased by 8.2 million students nationally. The public sector experienced an increase of 7.0 million students, including 2.3 million students in the southern region and 337,407 students in Florida. Between 1964 and 1988, student enrollment in public institutions of higher education in the United States increased by 218 percent, whereas the student enrollment in Florida's public institutions increased by 407 percent.

EXHIBIT 2-2

COLLEGE HEADCOUNT ENROLLMENT IN THE UNITED STATES, THE SOUTHERN REGION AND FLORIDA

Fall 1964 AND 1988

	1964			1988		
	PUBLIC	PRIVATE	TOTAL	PUBLIC	PRIVATE	TOTAL
United	3,205,7	1,782,0	4,987,8	10,182,9	2,973,3	13,156,
SREB	887,024	345,419	1,232,4	3,222,95	613,895	3,836,8
Florida		32,886		420,362	94,787	515,149

SOURCE: Southern Region Educational Board (SREB), 1991.

2.1.1 Growth of the State University System

The State University System in Florida was created in 1905 when the State Legislature enacted the Buckman Act and placed three existing institutions -- now known as the University of Florida, Florida State University, and Florida A & M University -- under the Board of Control. In 1956, the University of South Florida was added, and Florida Atlantic University followed in 1961. Other urban areas of the state began to compete for degree-granting public universities and, in 1963, both the University of West Florida in Pensacola and the Florida Technological University (now named the University of Central Florida) in Orlando were established. The Board of Control was abolished in 1965 and a nine-member Board of Regents was created to serve as the governing board for public universities. Under the Board of Regents, the last two universities to be included in the State University System were added -- both in 1965 -- the University of North Florida in Jacksonville and Florida International University in Miami. Although several branch campuses and centers have been added to existing state universities during the past 25 years to accommodate student growth, and the Legislature has discussed the need for a tenth university in

Broward, Lee or perhaps some other county, no public university has been added to the State University System in Florida since 1965.

Nonetheless, student enrollment in the State University System has continued to climb. Over the past decade, state university enrollments have grown from 74,805 full-time equivalent (FTE) students in 1978-89 to 93,769 full-time equivalent (FTE) students in 1988-89 (a 25 percent increase). During this same period, the headcount enrollment grew from 122,186 students in 1978-79 to 161,887 students in 1988-89 (a 32 percent increase).

2.1.2 Growth of the Community College System

The community college system in Florida began in 1933 when Palm Beach Junior College was created as the state's first two-year public college. In the 1940s, St. Petersburg Junior College changed from a private to a public institution and two additional community colleges were added in the northwestern region of the state -- in Pensacola and Marianna.

In 1957, the State Board of Education adopted a long range plan to provide a two-year college within commuting distance of 99 percent of the state's population, and thus established a mechanism for the creation of an orderly system of public community colleges in Florida. In this same year, the Legislature authorized creation of the Division of Community Colleges in the Department of Education. Initially in 1957, six additional community colleges were established and 17 more colleges followed in the 1960s. The plan for the community college system was completed in 1972 when the 28th community college, Pasco-Hernando, was added to the system. No additional community college has been established since that time, although additional centers and campuses have been added to serve the needs of the state's growing population.

Over the past decade, student enrollments in community colleges have grown from a headcount enrollment for advanced/professional and postsecondary vocational programs of 196,859 students in 1978-79 to 245,182 students in 1988-89 (a 25 percent increase). (The growth in FTE students cannot be compared because of a change in the FTE calculation by the State Board of Community Colleges during this period.)

2.2 Governance Structure and Delivery System for Higher Education in Florida

The State Board of Education serves as the governing and policy-making board for all public education in Florida. Under statutory authority, the Board of Regents governs the nine public universities, while the State Board of Community Colleges coordinates the 28 individual public community colleges which are each governed by a local board of trustees. As an advisory board to the State Board of Education, the Postsecondary Education Planning Commission is involved in postsecondary education issues at all levels. The Commission's responsibilities include both the public and independent sectors.

The independent higher education sector in Florida consists of 20 four-year institutions which are members of Independent Colleges and Universities of Florida (ICUF), an association of private institutions of higher education. Among Florida's independent colleges are institutions with student bodies as small as 500 students, as well as the largest private university in the southeastern United States -- the University of Miami. In addition to these 20 four-year institutions, the state has over 30 private two-year colleges.

A map which illustrates the locations of the main campuses of state universities, community colleges, and four-year independent colleges and universities is shown in exhibit 2-3.

2.2.1 The State University System

The State University System in Florida consists of nine main campuses, nine branch campuses, 42 centers, and numerous special purpose centers and instructional and special purpose sites. Exhibit 2-4 provides a list of the instructional delivery entities within the State University System.

The following definitions for each delivery entity have been incorporated into State Board of Education Rule 6C-8.009:

- **Main Campus** - the focal point of university educational and administrative activities, authorized by Section 240.2011, Florida Statutes.

- **Branch Campus** - an instructional and administrative unit of a university that offers students upper-division and graduate programs in high demand disciplines as well as range of support services, where some research may be conducted, and which has a campus administrator who reports to the central administration of the main campus. The Bay Vista Campus of Florida International University shall be an exception to this definition inasmuch as this particular campus also offers lower-division course work.

- **Center** - an instructional unit of a university or universities that offers students a limited range of instructional programs or courses. The head of a center reports to an academic officer on the main or a branch campus.

- **Special Purpose Center** - a unit of a university that provides certain special, clearly defined programs or services, such as research or public service, apart from the main campus, branch campus or center.

- **Instructional Site** - an instructional unit of a university that offers students a very limited range of instructional programs or courses, generally of special duration, in facilities not owned by the institution.

- **Special Purpose Site** - a unit of a state university that provides services of an educational nature that are other than instruction, research or administration.

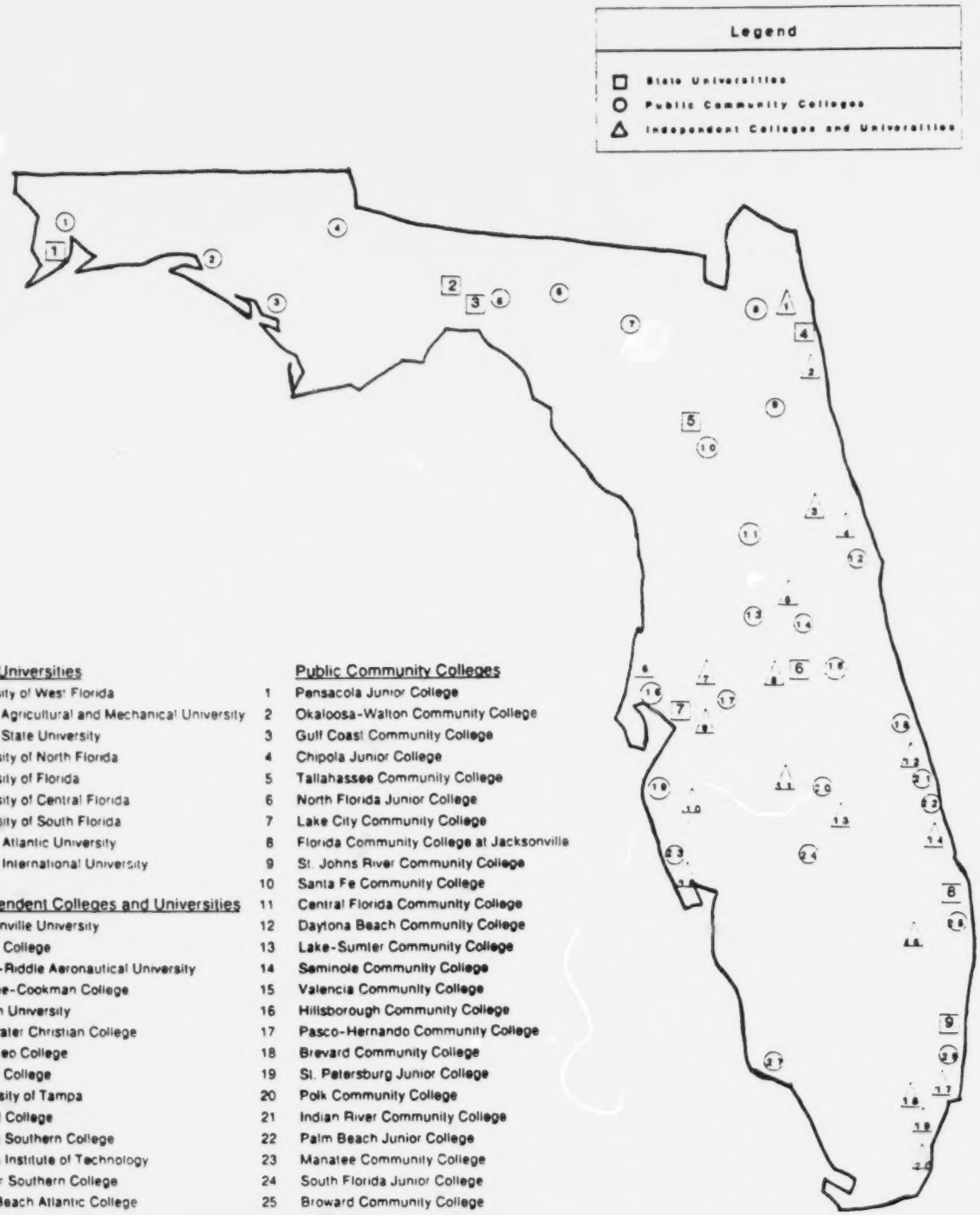
2.2.2 The Community College System

The community college system consists of 28 community colleges with a combined total of 119 delivery system entities, including 45 campuses and 45 centers. As noted in section 2.1, these colleges have been strategically located in population centers of the state in a manner designed to remove geographical barriers to a two-year college education. Exhibit 2-5 provides an overview of the community college system and its instructional delivery entities.

EXHIBIT 2-3

HIGHER EDUCATION IN FLORIDA

State Universities, Public Community Colleges and Independent Colleges and Universities



State Universities

1. University of West Florida
2. Florida Agricultural and Mechanical University
3. Florida State University
4. University of North Florida
5. University of Florida
6. University of Central Florida
7. University of South Florida
8. Florida Atlantic University
9. Florida International University

Independent Colleges and Universities

1. Jacksonville University
2. Flagler College
3. Embry-Riddle Aeronautical University
4. Bethune-Cookman College
5. Stetson University
6. Clearwater Christian College
7. Saint Leo College
8. Rollins College
9. University of Tampa
10. Eckerd College
11. Florida Southern College
12. Florida Institute of Technology
13. Warner Southern College
14. Palm Beach Atlantic College
15. Ringling School of Art and Design
16. Nova University
17. Barry University
18. Florida Memorial College
19. St. Thomas University
20. University of Miami

Public Community Colleges

1. Pensacola Junior College
2. Okaloosa-Walton Community College
3. Gulf Coast Community College
4. Chipola Junior College
5. Tallahassee Community College
6. North Florida Junior College
7. Lake City Community College
8. Florida Community College at Jacksonville
9. St. Johns River Community College
10. Santa Fe Community College
11. Central Florida Community College
12. Daytona Beach Community College
13. Lake-Sumter Community College
14. Seminole Community College
15. Valencia Community College
16. Hillsborough Community College
17. Pasco-Hernando Community College
18. Brevard Community College
19. St. Petersburg Junior College
20. Polk Community College
21. Indian River Community College
22. Palm Beach Junior College
23. Manatee Community College
24. South Florida Junior College
25. Broward Community College
26. Miami-Dade Community College
27. Edison Community College
28. Florida Keys Community College

EXHIBIT 2–4

OVERVIEW OF STATE UNIVERSITY SYSTEM AND ITS INSTRUCTIONAL DELIVERY ENTITIES

Governance

The Florida Board of Regents is a statewide governing board for the nine institutions that comprise the State University System of Florida.

Instructional Delivery

Universities	Main Campus Locations	Branch Campus Locations	Center Locations	Site Locations
University of Florida	Gainesville		Treeo Sand Hill Austin Cary 25 Agricultural Research Centers	Camps - Cherylake, Clover Timpoochee, Ocala Lake Wauberg Eglin Cross City Old Town Ocala Orlando Medical Center - Inverness
Florida State University	Tallahassee	Panama City	Asolo Workshop Innovation Park Orlando Alligator Point Ball Marine Lab Mission Rd. Station	Florence London
Florida A & M University	Tallahassee			Innovation Park
University of South Florida	Tampa	St. Petersburg Sarasota Ft. Myers Health Science Center		Lakeland Riverview Chinsegut WSFP FM/TV Cancer Care Psychiatric Hospital
Florida Atlantic University	Boca Raton	Broward Downtown Tower	Pine Log Palm Beach North BCC-Whiddon Hall Ocean Beach Lab South Atlantic	Ft. Pierce
University of West Florida	Pensacola		Ft. Walton Beach	Ellyson Industry Park
University of Central Florida	Orlando		South Orlando Daytona Beach	Florida Solar Energy Brevard
Florida International University	Miami	North Miami (Bay Vista) Davie		
University of North Florida	Jacksonville			

EXHIBIT 2-5

OVERVIEW OF COMMUNITY COLLEGE SYSTEM AND ITS INSTRUCTIONAL DELIVERY ENTITIES

Governance

The State Board of Community Colleges is a statewide agency to coordinate the efforts of 28 community colleges.

Each of the 28 community colleges has its own local "board of trustees" that governs the college.

Instructional Delivery

Community College	Campus Locations	Center Locations	Site Locations
Brevard	Cocoa (Joint Use) Melbourne Titusville	Palm Bay	Cocoa Village
Broward	Central (Davie) North South	College Administration Tiger Tail Lake	
Central Florida	Ocala	Bronson	Citrus – Lecanto (Joint Use)
Chipola	Marianna		
Daytona Beach	Daytona Beach (Joint Use)	West Volusia (Deland) Flagler/Palm Coast South Volusia	Deltona Anderson Biological
Edison	Ft. Myers	Collier	Charlotte
Florida at Jacksonville	Downtown (Jacksonville North Kent South	District Administration Marine	Main Street Nassau County
Florida Keys	Key West	Marathon (Joint Use)	
Gulf Coast	Panama City		Bay Point
Hillsborough	Dale Mabry (Tampa) Ybor City Plant City	Gordon Keller Admin Cockroach Bay Brandon	Brandon Temp Doc Nance Field
Indian River	Ft. Pierce	Chastain Center (Martin County) Mueller Center (Vero Beach) St. Lucie – West Okeechobee	Seaway Drive
Lake City	Lake City		Olustee

EXHIBIT 2-5 (Cont'd)

Instructional Delivery (Cont'd)

Community College	Campus Locations	Center Locations	Site Locations
Lake Sumter	Leesburg		
Manatee	Bradenton	South (Venice)	
Miami-Dade	North South Wolfson Medical Homestead	Liberty City Interamerican Hialeah	
North Florida	Madison		Firing Range
Okaloosa-Walton	Niceville	Chautauqua Ft. Walton (Joint Use)	
Palm Beach	Central (Lake Worth) North	Glades South	Fearnley Dolly
Pasco-Hernando	West (Pasco)	North (Hernando) East (Dade City) Gower's Corner	Spring Hill
Pensacola	Pensacola Warrington	Milton Caroline Street	Perdido Range
Polk	Winter Haven	Lakeland (Joint Use)	
St. Johns River	Palatka	Orange Park Fullerwood (St. Augustine)	
St. Petersburg	Clearwater St. Petersburg	District Office Tarpon Springs Bay Pines Health Education Carillon	
Santa Fe	Gainesville	Starke	Police Academy
Seminole	Sanford	HC Institute	Pistol Range
South Florida	Avon Park		
Tallahassee	Tallahassee	Gadsden	
Valencia	Orlando West East	Downtown Osceola Center - Kissimmee (Joint Use) McCoy	

State Board of Education Rule 6H-1.040 contains the common definitions for campuses and centers for the community college system. Unlike the state university system, multi-campus community colleges do not recognize a campus as a "main" campus or "branch" campus. Also, the community college rule does not define an instructional site.

The following definitions have been established in State Board of Education Rule 6H-1.040 for community colleges:

- **Campus** - an instructional and administrative unit of a community college, consisting of college-owned facilities and staffed primarily by full-time personnel. A campus houses a full range of instructional services and of institutional, instructional, and student support services. Facilities and other resources are sufficient to accommodate at least 1,000 full-time equivalent FTE students.

- **Center** - an instructional and administrative unit of a community college with limited support services. A center consists of college-owned or unowned facilities and is staffed by full-time personnel. It does not necessarily offer a full range of instructional programs and courses.

2.3 Alternative Delivery Systems

In addition to the above traditional forms of instructional services, alternative delivery systems exist in Florida and provide postsecondary education services to thousands of students. For each campus or center there is a broad range of delivery techniques that can be used. Traditional face-to-face instruction is envisioned as the dominant mode of delivery. This is appropriate, since in most cases this mode is best in terms of quality and responsiveness to student needs. However, one of the weaknesses of establishing permanent facilities is a tendency to resist alternative ways of teaching students.

Once a permanent facility is available, the natural inclination is to offer all courses at that facility in traditional classroom mode. This may not always be the most effective way to meet the learning needs of students, especially older working adults who may need or desire more interaction, emphasis on specific kinds of skills, or an alternative location in some cases. Thus, it is important that all the campuses and centers be flexible and open to experimentation in instructional delivery. They should be encouraged to develop innovative combinations of delivery techniques across their mix of programs, within individual programs, and even in the context of individual courses.

Perhaps the most popular alternate delivery technique is the use of telecommunications technologies. Both the 1982 *Master Plan for Florida Postsecondary Education* and the 1988 *Master Plan Update* emphasize that the effective use of educational technology offers new instructional possibilities, provides greater access to higher education, and serves as a tool for economic development.

In response to a 1985 feasibility study conducted by the Postsecondary Education Planning Commission, the Legislature authorized establishment of a satellite network system throughout Florida. Receiving dishes were installed in each of the 28 community college regions and the satellite network became fully

operational in 1987. Several designated sites in school districts, community colleges, and state universities serve as receiving and viewing sites for telecommunications broadcasts via satellite, and a variety of instructional services are being provided through the network.

While the state satellite network represents Florida's only comprehensive network employing telecommunications for educational purposes, a number of institutions have established innovative approaches using telecommunications technology. For example, Valencia Community College uses an audio bridge to provide college credit instruction. The bridge is used to connect remote sites such as a student's home, or business site such as Disney World, with the instructor. The bridge allows two-way communication with the instructor and other students. The bridge has been used to teach music appreciation and economics classes.

The Florida Engineering Education Delivery System (FEEDS), which was developed by the Board of Regents, uses video tapes to meet the graduate program needs of engineers working in industry. Live courses on campus are video taped and delivered throughout the state to FEEDS centers. Each class session is led by a tutor and the tape can be stopped for discussion or questions.

Cable and broadcast television are used by several colleges and universities to present telecourses. Courses are taped and carried on television into homes. In this case, the instruction is not live or interactive. In fact, the entire course may be purchased or leased from another institution. Miami-Dade Community College and the University of South Florida are two postsecondary institutions which frequently use this form of telecommunications for off-campus instruction.

Because of the rapid expansion of off-campus programs by public and private institutions throughout the country and the unacceptable level of quality of certain off-campus programs (e.g., correspondence and independent courses, external degree programs, etc.), both the Council on Postsecondary Accreditation and the Southern Association of Colleges and Schools (SACS) have developed standards for the review of off-campus programs. In essence, the accrediting policies and procedures emphasize that the institution is responsible for ensuring the quality and integrity of all programs and courses, regardless of where they are located.

2.4 Legal Authority to Plan for New Institutions, Campuses and Centers

The Postsecondary Education Planning Commission is charged with advising the State Board of Education of the need for new centers, campuses, and institutions. Section 240.147(6), (7), and (8), Florida Statutes, contains the following powers and duties of the Commission:

- Advise the State Board of Education regarding the need for and location of new programs, institutions, campuses, and instructional centers of public postsecondary education.

- Recommend to the State Board of Education and the Legislature the establishment of additional branch campuses of public postsecondary educational institutions. No branch campus may be established without a review by the commission and formal authorization by the Legislature. Any community college branch campus established to provide only exploratory, occupational

proficiency, job preparatory, and supplemental vocational and technical instruction must be reviewed and recommended again by the commission and receive specific authorization by the Legislature before expanding its instructional offerings to the college parallel program area.

- Review the establishment of those instructional centers with require approval by the Board of Regents or the State Board of Community Colleges.

The above three subsections of statute are somewhat ambiguous in that it appears that the Commission is simultaneously charged with advising on the need for all instructional entities, recommending on the establishment of branch campuses, and reviewing the establishment of centers. Nonetheless, the statute does mandate the direct involvement of the Commission in the approval process for the creation of new delivery entities or the conversion of one type of delivery entity into another.

The role of the Board of Regents and State Board of Community Colleges in approving new delivery entities is contained in separate State Board of Education rules which are described below. Neither state board rule addresses the establishment of a new institution.

2.4.1 State Universities

The following processes are included in State Board of Education Rule 6C-8.009 for the establishment of campuses, centers and sites for state universities:

- **Branch Campus** - The process for establishment of a new branch campus requires approval by the Board of Regents and development of a three-year priority list, as well as long-term needs for facilities construction. In its request for authority to establish a branch campus, a university shall submit a report regarding the long-term requirements for programs relating to its mission statement and course offerings.

- **Center** - The establishment of new centers requires an assessment of needs and approval by the Board of Regents. In submitting its request for authority to establish a center, a university shall submit a report regarding the long-term requirements for programs relating to the mission statement and course offerings.

- **Instructional or Special Purpose Site** - Universities retain the ability to establish sites to meet demonstrated needs without the necessity for approval or recommendation of the Board of Regents.

The above rule, which was promulgated in 1987, does not contain minimum enrollment criteria needed for the establishment of a campus, center or site. Previously, in 1969, a Comprehensive Development (CODE) Plan was developed for the State University System and approved by the Board of Regents. The CODE Plan emphasized that the "development of new institutions must follow some prescribed pattern so that existing strengths might be more effectively utilized in future expansion." The CODE document contained enrollment criteria which

provided for the geographic expansion of the State University System. The following size and enrollment criteria were included in the plan for the establishment of centers, branches and new universities:

- **University Center** - A total of 45 or more classes with 20 students per class must be offered. At least one broad subject matter discipline (e.g., education, natural services, humanities) must be represented by a concentration of at least 15 classes.

- **University Branch** - A center can be considered for branch status when the center enrolls 1000 full-time day students and 2500 part-time evening students. At least two complete degree programs should be available at the center.

- **Separate University Status** - In order to qualify for separate university status, the branch must have reached a full-time student enrollment of 5000, and a determination made that a need exists for an additional state university.

Exhibit 2-6 displays the current legal authority for approving new university program delivery entities in the State University System.

2.4.2 Community Colleges

A proposal to establish a campus or center in a community college must document the following conditions specified in SBER 6H-1.040:

- The proposed campus or center must be consistent with the long-range master plan of the college.

- It must be demonstrated that expanded or new instructional and support services are necessary to adequately serve the community college district.

- Existing campuses must have at least student FTE enrollments of 3,000 full-time equivalent students and projected student enrollments are stable or increasing.

- Enrollment projections (within five years of the current year) must be provided which illustrate at least 1,000 full-time equivalent students for a proposed campus, or at least 400 FTE for a proposed center.

- Facilities at existing campuses or centers, already established by the State Board of Community Colleges or by prior State action, must be substantially complete and utilized.

- The proposed campus or center must be planned in cooperation with other educational agencies within the community college district and adjacent to the district. Letters of agreement from the school district, regional coordinating councils and community college president(s) should be included.

EXHIBIT 2-6

LEGAL AUTHORITY FOR APPROVING NEW UNIVERSITY PROGRAM DELIVERY ENTITIES

ORGANIZATION	TYPE OF DELIVERY ENTITY			
	SITE	CENTER	BRANCH CAMPUS	SEPARATE UNIVERSITY
University Administration	Establishes	Prepares Request	Prepares Request	N/A
Board of Regents	Not Involved	Approves and Recommends	Approves and Recommends	Prepares Request and Recommends
Postsecondary Education Planning Commission	Not Involved	Advises and Reviews	Advises and Recommends	Advises
State Board of Education	Not Involved	Reviews and Recommends	Reviews and Recommends	Reviews and Recommends
Legislature	Funds	Approves and Funds	Approves and Funds	Enacts and Funds

LEGAL AUTHORITY
Section 240.209(1), F.S.
Section 240.2011, F.S.
Section 240.147(6), (7), and (8), F.S.
SBER 6C-8.009, F.S.

717a/EXH2-6.WK1

- Alternatives to the proposed expansion, such as under-utilized, vacant or leased facilities, were considered by the board of trustees. A complete analysis of alternatives must also be included.

Exhibit 2-7 displays the legal authority for approving new instructional delivery entities in the community college system. As noted in the exhibit, State Board of Education Rule 6H-1.040 does not address the establishment of new instructional sites by a community college.

EXHIBIT 2-7

LEGAL AUTHORITY FOR APPROVING NEW COMMUNITY COLLEGE PROGRAM DELIVERY ENTITIES

ORGANIZATION	TYPE OF DELIVERY ENTITY			
	SITE*	CENTER	BRANCH CAMPUS	SEPARATE COLLEGE
College Administration		Prepares Request	Prepares Request	N/A
Board of Trustees		Approves and Recommends	Approves and Recommends	N/A
State Board of Community Colleges		Approves and Recommends	Approves and Recommends	Prepares Request and Recommends
Postsecondary Education Planning Commission		Advises and Reviews	Advises and Recommends	Advises
State Board of Education		Reviews and Recommends	Reviews and Recommends	Reviews and Recommends
Legislature		Approves and Funds	Approves and Funds	Enacts and Funds

* Florida Statutes and State Board of Education Rules are silent on the legal authority for approving community college sites

LEGAL AUTHORITY
Section 120.53(1), F.S.
Section 240.147(6), (7), and (8), F.S.
SBER 6H-1.40, F.S.

717a/EXH2-7.WK1

3.0 EDUCATION NEED

3.0 EDUCATION NEED

The development of criteria to guide the state of Florida in making decisions about the establishment of new centers, campuses and institutions must include consideration of the

- higher education needs and goals of the state
- how well the current delivery system meets those needs and goals.

3.1 Major Issues

Thus, major issues of importance to Florida are:

1. What level and types of higher educational opportunities should Florida provide for its citizens so that they may reach their full economic and social potential as individuals?
2. What level of higher education degree output should Florida's institutions annually produce to enable the state's work force and businesses to be competitive in a global economy?
3. To what extent should state supported higher education services be available to citizens in all areas of the state?
4. What are the most cost-effective methods of delivering higher education services which accomplish the state's higher education goals?

This chapter addresses only the first three of the above four issues. The fourth issue is addressed in chapter 4.

In response to the first three issues above, this chapter examines:

- the importance of higher education to Florida's citizens, as individuals
- the importance of higher education to Florida, as a whole
- the world economic transition
- Florida's performance in the global economy
- Florida's educational output compared to the output of other states
- the establishment of meaningful Florida higher education goals.

Parts of this chapter were extracted from previous studies conducted by MGT of America, Inc., for the states of Kentucky, Texas, Washington, Montana, Connecticut and Mississippi.

3.2 Historical Importance of Education

Education has long been recognized as a major contributor to the well-being of individuals and societies.

- Dewey, in his essay on Democracy and Education, saw education as providing the vehicle for the transmittal of shared values, ideas, beliefs, and practices which are the "glue" of social life and a necessary component of democracy

- Research by social scientists has shown that an individual's educational level is one of the most accurate predictors of economic status, which in turn predicts health status, marital status, social adjustment and happiness. The middle and upper income classes in our society tend to suffer less from mental disorders, chronic health problems, divorce and abandonment, unemployment, criminal activities and violent crime than their lower income counterparts

- Education is both the structure and process through which art, culture and scientific thought flourish in our society

- Our country's free public school programs and highly subsidized higher education programs are designed to provide the opportunity for every American, regardless of wealth or social standing, to reach his or her full potential.

Because of the recognition that education is an essential ingredient in the achievement of a productive and satisfying life, most state and local governments spend more on education than any other single state service, with approximately one-third of state and local government budgets dedicated to education.

3.3 Education as a State Economic Resource

In recent years, education has become an even more important factor for both individuals and societies. Education has become an economic resource that is as important to economic prosperity as vast supplies of natural resources and capital, availability of labor, and access to markets. In fact, many now believe that education is the most important ingredient for future economic growth.

Economists Eli Ginzberg and George J. Vojta writing in the March, 1981 issue of Scientific American stated that

> *...human capital, defined as the 'skill, dexterity and knowledge' of the population, has become the critical input that determines the rate of growth of the economy and the well-being of the population. We contend that the competence of management and the skills of the work force, particularly of those engaged in producer services, determines the ability of enterprises to obtain and utilize effectively the other essential resources, such as physical capital, materials, and technology.*

Newsweek, in its September 15, 1989 anniversary issue (page 159), stated that

> *Today's economy demands that people work with their brains, not with their hands.*

The importance of education as an economic resource is being accentuated by the emergence of a new world order of economic activities. Major changes are occurring in world economic patterns:

- Agricultural and industrial production is shifting to third world nations where labor and other costs of production are less expensive
- High technology machines are increasingly performing the production functions previously performed by human labor
- A new knowledge-based service sector, which assembles, organizes and communicates information to increase production efficiency and which designs and builds more efficient production techniques, is now well established and growing rapidly.

As a part of the emerging new global economy, the U.S. economy is undergoing a major transition from an industrial-based economy to a service/knowledge-based/high technology economy. The transition is resulting in:

- significant increases in the demand for workers in the traditional white-collar job categories of
  - professional/technical
  - managerial/administrative
  - clerical
- a growth of high technology/knowledge-based industries
- decreases in the relative contributions of traditional resource based and low wage manufacturing industries

3.3.1 Increased Demand for White Collar Workers

As shown in exhibit 3-1, over half of the U.S. work force now occupy white collar jobs that involve primarily the gathering, processing, distribution, and utilization of information. The percentage of white collar workers is not only growing, it is growing at an increasing rate. In 1970, only 47.4 percent of the U.S. work force held white collar jobs. Ten years later the percentage had increased to 51.5 percent and by 1988, to 56.3 percent. The U.S. is clearly on its way to becoming an economy where workers design and manage machines and machines produce the goods (including other machines) and services.

White collar jobs require advanced education:

- Higher levels of education are required to prepare people to be productive white collar workers. As shown in exhibit 3-2, census data show that 60 percent of the nation's managerial and professional workers have four or more years of college compared to only about seven percent for all blue collar workers.

EXHIBIT 3-1

PERCENTAGE OF THE U.S. LABOR FORCE BY TYPE OF OCCUPATION

OCCUPATION	YEAR		
	1970	1980	1988
White Collar Workers			
Managerial and Professional	18.5%	21.8%	25.4%
Technical, Sales and Administrative Support	28.9	29.7	30.9
SUBTOTAL	47.4%	51.5%	56.3%
Blue Collar Workers			
Service Occupations	12.8%	13.1%	13.3%
Farming, Forestry and Fishing	3.8	2.9	3.3
Precision Production, Craft and Repair	14.1	13.0	11.9
Operators, Fabricators and Laborers	21.8	19.2	15.5
SUBTOTAL	52.6%	48.5%	44.0%

Source: U.S. Bureau of Labor Statistics, Employment and Earnings, January 1989.

717/EXHIB3-1.WK1

EXHIBIT 3-2

PERCENT OF U.S. LABOR FORCE BY TYPE OF OCCUPATION WITH FOUR OR MORE YEARS OF COLLEGE

OCCUPATIONAL CATEGORIES	PERCENT WITH 4 OR MORE YEARS OF COLLEGE
White Collar Workers	
Managerial and Professional	60.5%
Technical, Sales and Administrative Support	17.3
Blue Collar Workers	
Service Occupations	6.1
Farming, Forestry and Fishing	7.3
Precision Production, Craft and Repair	5.8
Operators, Fabricators and Laborers	3.5

Source: U.S. Department of Labor, Bureau of Labor Statistics, Office of Employment and Unemployment Statistics, "Educational Attainment of Workers," March 1987.

717/EXHIBIT-2.WK1

- The percentage of white collar workers in a state is highly correlated with the educational level of the work force. Research has shown that for each one percent increase in adult population with one or more years of college, the states have generally experienced a similar increase in the percent of white collar workers.[1]

Thus, it is clear that Floridians who want to fully participate in the new world economy must be prepared to competently perform those jobs demanded by the new economy. Those jobs are primarily white collar jobs which require higher levels of education. It is also clear that if the Florida economy is to become a world economic leader, the state must have the educated work force to competently perform white collar jobs.

3.3.2 Increasing Growth of High Technology/Knowledge-Based Industries

A major part of the emerging new economy is the rapid growth of high technology/knowledge-based industries or commercial activities. Certain parts of the U.S., e.g. the "Silicon Valley" in California and "Route 28" in Boston, have become famous for their growth in high technology/knowledge-based industries. Other areas, such as Orlando, Florida; Austin, Texas; and the North Carolina Research Triangle area have experienced significant growth in recent years.

Unlike many previous industries, high technology/knowledge-based industries are not location-bound by supplies of raw materials, or access to inexpensive transportation facilities, or access to markets. A study of high-technology businesses by the U.S. Congress Joint Economic Committee found that:

1. The (high technology) firms are labor-intensive rather than capital-intensive in their productive process, employing a higher percentage of technicians, engineers and scientists than other manufacturing companies.

2. The industries are science-based in that they thrive on the application of advances of science to the market-place in the form of new products and production methods.

3. Research and development inputs are much more important to the continued successful operation of the high technology firms than is the case for other manufacturing industries.

A national survey of high-technology firms by the Joint Economic Committee (exhibit 3-3) found that the three most important factors influencing the site selection of high-technology firms were:

1. availability of technically-qualified workers

2. availability of skilled workers

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[1] MGT of America, Inc., A Review of Medical, Dental, Law and Engineering Professional Programs, prepared for Kentucky Council on Higher Education, 1983.

3. availability of professional workers

The factors identified in the survey as being lowest in importance were the more traditional factors of:

- availability of unskilled workers
- good transportation facilities for materials and products
- proximity to customers

EXHIBIT 3-3

FACTORS THAT INFLUENCE SITE LOCATION CHOICES OF HIGH-TECHNOLOGY COMPANIES WITHIN REGIONS

RANK	ATTRIBUTE	PERCENT SIGNIFICANT OR VERY SIGNIFICANT
1	Availability of Workers:	96.1
	Skilled	88.1
	Unskilled	52.4
	Technical	96.1
	Professional	87.3
2	State and/or Local Government Tax Structure	85.5
3	Community Attitudes Toward Business	81.9
4	Cost of Property and Construction	78.8
5	Good Transportation for People	76.1
6	Ample Area for Expansion	75.4
7	Proximity to Good Schools	70.8
8	Proximity to Recreational and Cultural Opportunities	61.1
9	Good Transportation Facilities for Materials and Products	56.9
10	Proximity to Customers	46.8
11	Availability of Energy Supplies	45.6
12	Proximity to Raw Materials and Component Supplies	35.7
13	Water Supply	35.3
14	Adequate Waste Treatment Facilities	26.4

Note: Respondents were asked to rate each attribute as "very significant, significant, somewhat significant, or not significant" with respect to their location choices. The percent of very significant and significant responses were added together to obtain an index of overall importance.

Source: "Location of High Technology Firms and Regional Economic Development," A Staff Study for the Joint Economic Committee of the U.S. Congress, June 1, 1982.

- availability of energy supplies
- proximity to raw materials and component supplies

The message from the Joint Committee Study is clear: *"The availability of an educated work force is the most important factor affecting the ability of an area to attract and foster the growth of a high technology industry."*

The Joint Committee study concluded that:

> *...high-technology companies are 'footloose' in that access to raw materials, access to markets and transportation are not major locational determinants. Nor are factors such as water resources, energy supplies, and climate important determinants of the location of high-technology companies. In contrast to other manufacturing companies, high-technology companies are drawn more to highly specialized resources such as labor skills and education, and to factors that make it easier to attract and maintain a skilled labor force...*

John Naisbitt, in his first book, Megatrends, reached similar conclusions to those of the Joint U.S. Congress Committee. Naisbitt stated:

> *To attract and keep high-tech industry, states must be prepared to supply a steady stream of college graduates with the technological sophistication required of the entering work force and the ability to keep abreast of developments in their fields. Life-long learning is upon us...*[2]

3.3.3 Correlation Between Higher Education and a State's Economic Growth

Although nearly everyone agrees that there is a positive relationship between a state's education level and the performance of the state's economy in today's economic environment, questions still remain as to how strong that relationship really is and whether it extends to the higher levels of education. To test the hypothesis that there is a direct and strong relationship, we calculated the statistical correlation between the percentage of population with four or more years of college in 1980 (the latest year of available data on a state basis) with the 1983 per capita incomes of the 50 states.

As shown in exhibit 3-4, we found that:

- there is a very strong statistical correlation between the per capita income and the percentage of adult population with four or more years of college, with the percent of college graduates accounting for 48 percent (R^2 = .48) of the statistical variation in per capita incomes
- based upon the regression analysis, the states experienced a $360 increase in their 1983 per capita income for each 1 percent increase in adult population with four or more years of college.

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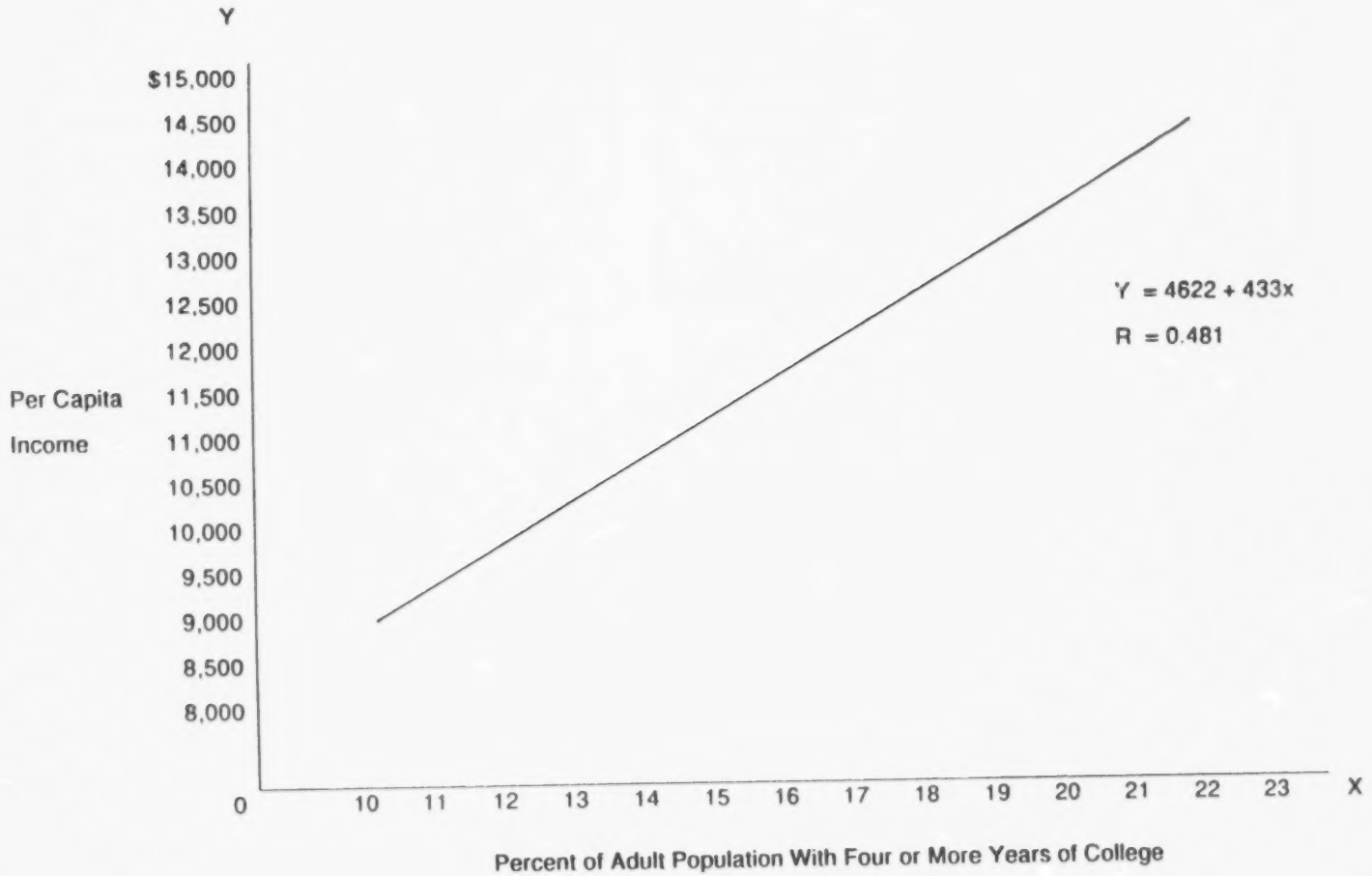
[2] John Naisbitt, Florida Trend Magazine, April 1983, page 54.

EXHIBIT 3–4

STATISTICAL RELATIONSHIP BETWEEN THE 1983 PER CAPITA INCOME AND
THE 1980 PERCENT OF ADULT POPULATION WITH FOUR OR MORE YEARS OF COLLEGE



It is clear from exhibit 3-4 that a high correlation does exist between the per capita income and the higher education levels of the states' populations. Of course, it is not clear which is the "cause" and which is the "effect". A higher per capita income definitely enables more students to afford a college education. And the higher percentages of a college educated work force make a state more competitive in today's economic environment.

Most probably, education and economic growth are mutually reinforcing. Those states that provide a high level of college education for their citizens create a more competitive economy with higher per capita incomes, which in turn enables more citizens to earn college degrees and vice versa. Regardless of which factor is the "cause" and which is the "effect", as a state's per capita income grows, its higher education delivery system must expand to meet the increased demand and need. If this expansion does not take place, many of the state's citizens will be denied an opportunity to realize their full potential and the state's ultimate economic competitiveness will be threatened.

3.4 Importance of Education to Individuals

Within the context of the new world economy, education has become essential to the quality of life of individuals. Naisbitt and Aburdene, in Megatrends 2000, describe the importance of education to each individual in the following practical terms:

> *... The informative economy is producing an extraordinary number of well-paying, challenging jobs. However, you must possess the required skills to do those jobs. Tragically, the unskilled, the undereducated will command salaries that match their economic value in an information society - not very high.*[3]

Naisbitt and Aburdene's conclusion is strongly supported by statistical data which show that:

- the unemployment rates of individuals with less than four or more years of college is significantly higher than those with four or more years (exhibit 3-5),
- the average annual income of individuals increases significantly with their education levels (exhibit 3-6).

More importantly, the impact of education on the average annual income of individuals is expected to become even more dramatic in the future. A recent study by the Urban Institute[4] found that the gap in lifetime earnings between individuals with high school degrees and those with college degrees will become

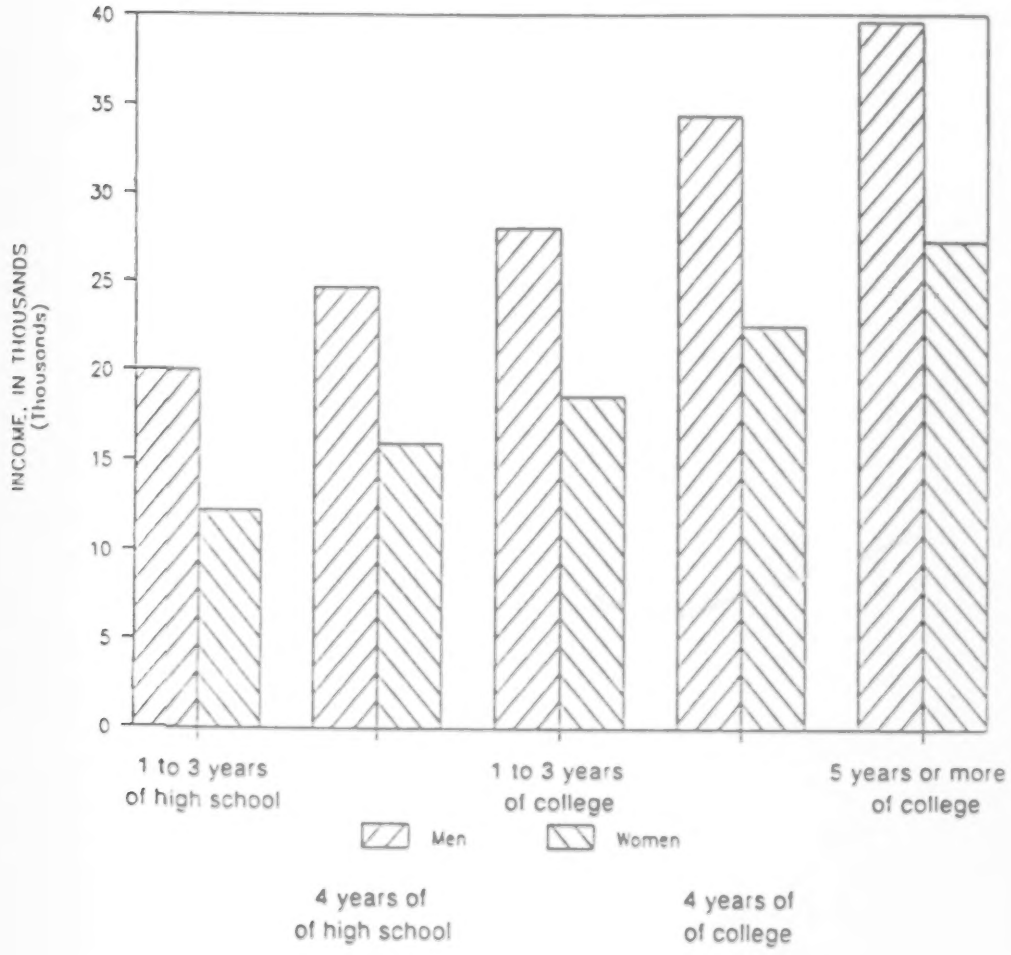
---

[3] Naisbutt and Aburdene, Megatrends 2000, (page 42) William Morrow and Company, Inc., New York, 1990.

[4] Economic Status Across Generations: Prospects for the Future. 1989 The Urban Institute, 2100 M Street, N.W. Washington, D.C. 20037

EXHIBIT 3-5

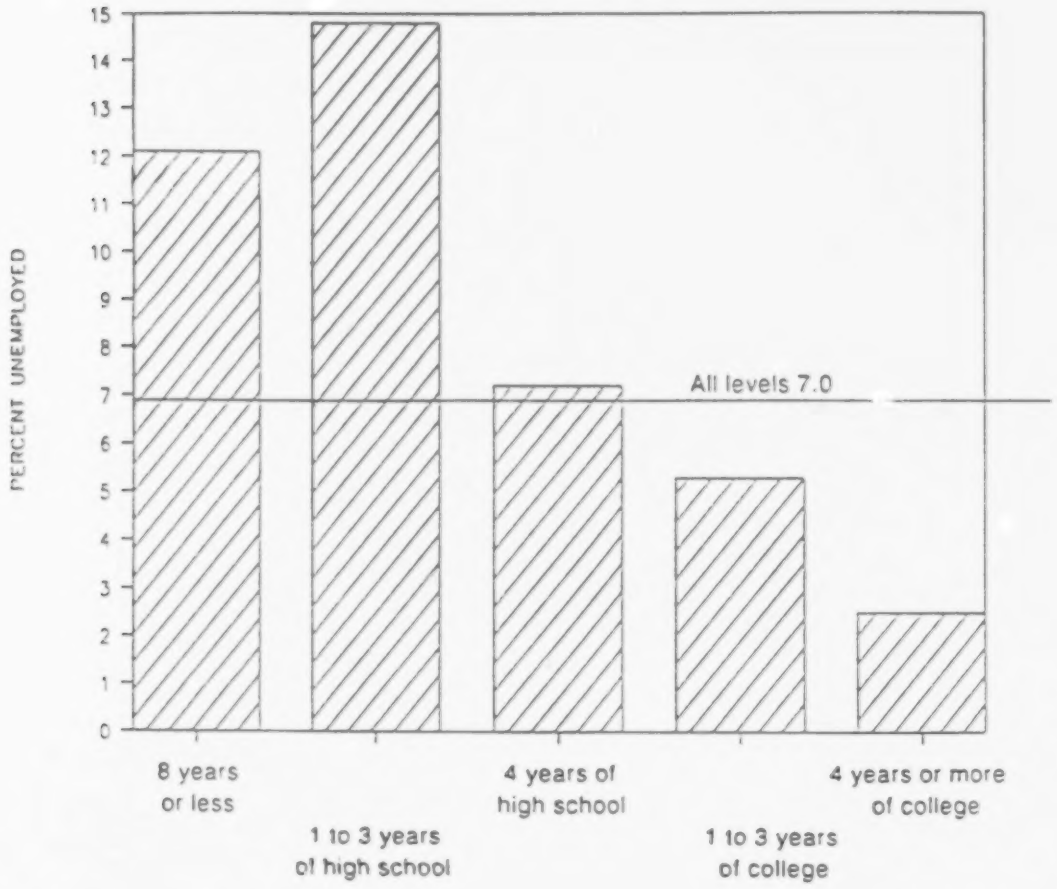
MEDIAN ANNUAL INCOME OF FULL-TIME U.S. WORKERS 25 YEARS OLD AND OVER, BY YEARS OF SCHOOL COMPLETED AND SEX: 1986



SOURCE: U.S. Department of Commerce, Bureau of Census, Money Income and Poverty Status of Families and Persons in the United States, Series P-60, No. 167

EXHIBIT 3-6

NATIONAL UNEMPLOYMENT RATES FOR PERSONS 16 YEARS OLD AND OVER, BY YEARS OF SCHOOL COMPLETED: MARCH 1987



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Office of Employment and Unemployment Statistics, "Educational Attainment of Workers," March 1987

even greater for the next generation. The Urban Institute's findings are substantiated by the information shown earlier in exhibits 3-1 and 3-2 which, together, show that the fastest growing job categories ("Managerial and Professional" and "Technical, Sales and Professional") in the United States are the categories where job holders have the higher levels of education.

Thus, any state or region that fails to provide its people, or any subgroup of its people, with an opportunity for education in the coming years is dooming them to a lifetime of poverty or near poverty.

3.5 Competition for Economic Growth

As the new economy continues to emerge, it is becoming increasingly clear that nations, states, regions, and local areas are in major competition with each other to be a significant part of the new economic order. If there were ever any doubt about the effective power of world economic trends to cause major shifts in economic prosperity, that doubt has been removed by the major shifts that are occurring in the United States. As demonstrated in Exhibit 3-7, some states and regions are suffering major reductions in relative economic activity while others are prospering.

As shown in Exhibit 3-8, thirteen states experienced 20 percent or more growth in their per capita incomes (after adjustment for inflation) between 1979 and 1989. These 13 high growth states averaged a 33.78 percent growth in real per capita income during the ten year period, while the remaining 37 states averaged only a 9.48 percent growth.

As a result of the shifts in economic prosperity, state, regional, and local leaders all over the U.S. are banding together at an increasing rate and taking the initiative to improve the ability of their geographical areas to be major participants in the new world economy. Aggressive action has taken the place of passive observation.

3.5.1 Educational Initiatives

While improvement in educational systems is not the only initiative being taken by state and local leaders, education is certainly a high priority. Perhaps this is because the absence of top quality education programs significantly reduces the effectiveness of all other initiatives.

The National Governors Association, meeting in 1987, concluded that:

- Governors should work to greatly expand the use of their states' public university systems to promote economic growth
- Higher education should play an important role in the training of workers and the development and dissemination of new technologies
- The state's role is critical in helping both the emerging and current work force become more productive. Because schools and universities are under the jurisdiction of state government, the state can directly influence the competency of the emerging work force.

EXHIBIT 3-7

Percent CT, WA, & WY per Capita Income
Above/Below the US Average, 1979-1989

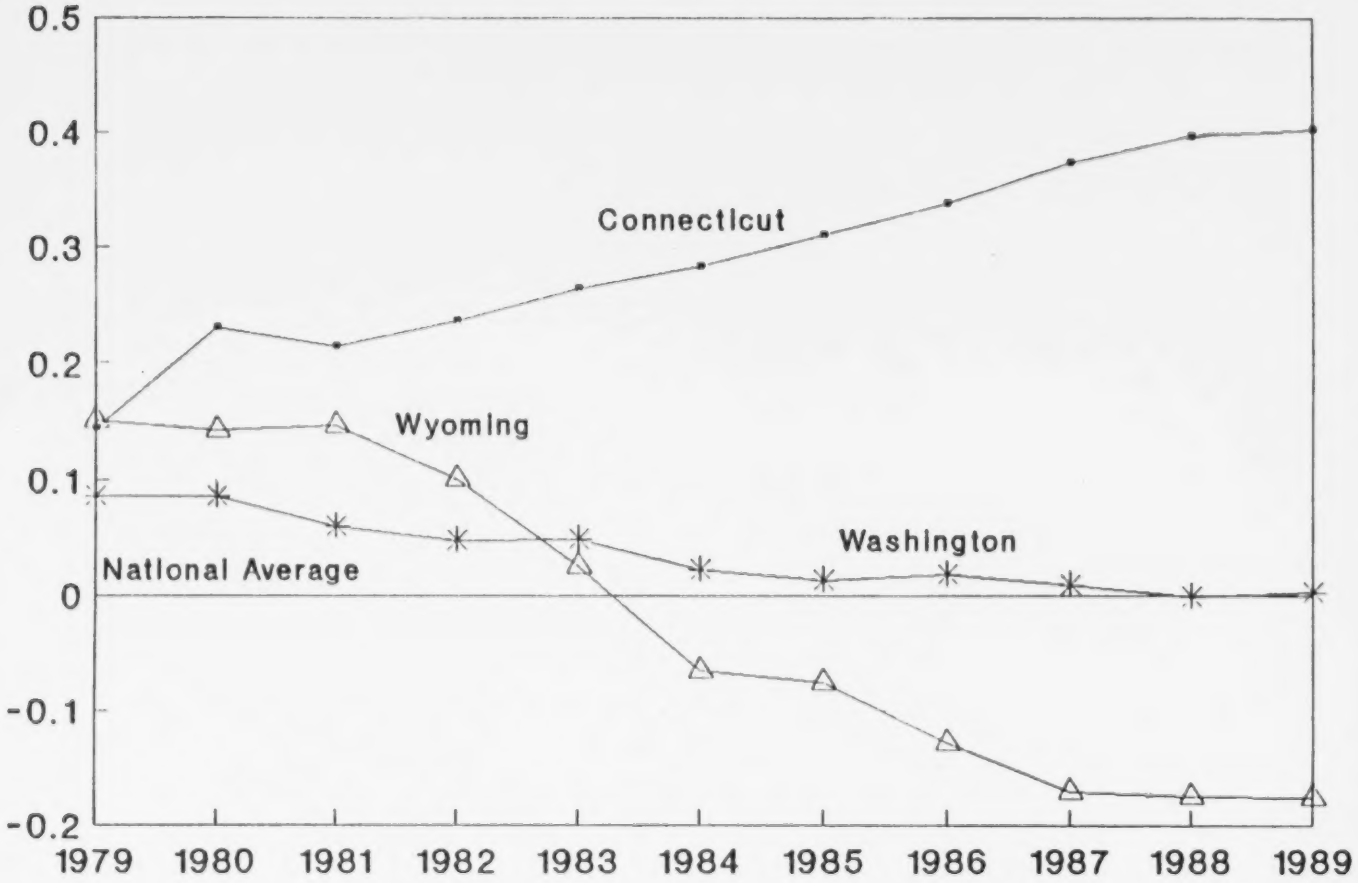


EXHIBIT 3-8

COMPARISON OF FLORIDA PER CAPITA INCOME TO THAT OF OTHER STATES IN 1979 AND 1989 ARRANGED IN DESCENDING ORDER OF RATE OF GROWTH (EXPRESSED IN 1989 CONSTANT DOLLARS)

	STATE	1979	1989	AMOUNT OF INCREASE	PERCENT INCREASE
1	Massachusetts	15,106	22,174	7,068	46.79%
2	Connecticut	17,010	24,683	7,673	45.11%
3	New Hampshire	14,059	20,267	6,208	44.16%
4	New Jersey	16,571	23,778	7,207	43.49%
5	New York	15,539	21,073	5,534	35.61%
6	Maine	12,053	16,248	4,195	34.80%
7	Maryland	15,628	21,013	5,385	34.46%
8	Vermont	12,434	16,371	3,937	31.66%
9	Virginia	14,697	18,927	4,230	28.78%
10	Rhode Island	14,118	17,950	3,832	27.14%
11	Georgia	12,836	16,053	3,217	25.07%
12	FLORIDA	14,573	17,647	3,074	21.10%
13	North Carolina	12,569	15,198	2,629	20.91%
14	Pennsylvania	14,619	17,269	2,650	18.13%
15	Minnesota	14,962	17,657	2,695	18.01%
16	Tennessee	12,467	14,694	2,227	17.87%
17	California	16,931	19,929	2,998	17.70%
18	Missouri	13,889	16,292	2,403	17.30%
19	Hawaii	15,975	18,472	2,497	15.63%
20	Colorado	15,278	17,553	2,275	14.89%
21	Wisconsin	14,380	16,449	2,069	14.39%
22	Alabama	11,915	13,625	1,710	14.35%
23	South Carolina	12,002	13,634	1,632	13.60%
24	Delaware	16,323	18,483	2,160	13.23%
25	Alaska	19,218	21,656	2,438	12.68%
26	Illinois	16,778	18,824	2,046	12.20%
27	Arizona	14,185	15,802	1,617	11.40%
28	Arkansas	11,589	12,901	1,312	11.32%
29	Mississippi	10,533	11,724	1,191	11.30%
30	Montana	12,660	14,078	1,418	11.20%
31	Nevada	17,428	19,269	1,841	10.56%
32	Michigan	15,831	17,444	1,613	10.19%
33	Kentucky	12,540	13,743	1,203	9.59%
34	Washington	16,115	17,647	1,532	9.51%
35	South Dakota	12,526	13,685	1,159	9.25%
36	Ohio	14,988	16,373	1,385	9.24%
37	Nebraska	14,246	15,446	1,200	8.42%
38	Idaho	12,718	13,707	989	7.78%
39	Kansas	15,466	16,498	1,032	6.67%
40	Utah	12,272	13,079	807	6.58%
41	Indiana	14,836	15,779	943	6.36%
42	Texas	14,772	15,702	930	6.29%
43	Iowa	14,670	15,487	817	5.57%
44	New Mexico	12,458	13,140	682	5.47%
45	Oregon	15,102	15,919	817	5.41%
46	North Dakota	13,278	13,563	285	2.15%
47	Louisiana	12,771	12,921	150	1.18%
48	Oklahoma	14,050	14,154	104	0.74%
49	West Virginia	12,759	12,345	(414)	-3.24%
50	Wyoming	16,494	14,508	(1,986)	-12.04%
	UNITED STATES				

7:7/EXH3-8 WK1

In recognition of the fact that high-quality education programs are an essential part of a state's competitive ability to acquire for its citizens a fair share of the nation's future economic growth, state and regional leaders are making major investments in education, and educational leaders are designing and implementing the programs required to support future economic growth.

Specific examples of actions being taken by states to improve the competitive positions of their work force and economy as shown in exhibit 3-9.

3.5.2 Importance of Action Now

Those states and regions that win the world competition for service/knowledge-based/high technology industries during the next 10 to 15 years will have a sound economic base well into the twenty-first century. Just as those states that won in the previous industrial competition enjoyed a sound economic base for most of the twentieth century, states that make the appropriate investment today will provide their citizens with a better way of life for years to come. Similarly, those states and regions that fail to make the transition may doom their citizens to a declining share of the world's prosperity for most of the 21st century.

3.6 Florida's Economic Performance

Florida's economy, until the last few years, has performed extremely well in the new world economy. As shown in exhibit 3-10, in 1951 Florida's per capita income was almost 18 percent below the national average. During the period from 1966 to 1972, however, the state's per capita income grew rapidly from about 14 percent below the national average to only about 2 percent below. Another major growth occurred between 1972 and 1975 when the state's per capita income went above the national average for the first time ever.

Since 1982, however, the state's per capita income (exhibit 3-10) has grown only at about the same rate as the national average, indicating that the state's economy has lost some of the competitive edge that it enjoyed in previous periods of rapid growth.

There is little doubt that Florida has a strong economic base and the potential to be a world economic leader. However, that future is not guaranteed.

3.7 Florida's Economic Challenge

Florida's leaders must understand that in today's highly competitive environment, no state and only a few of the poorest nations are standing still. Each is working hard to develop and implement programs which will improve its competitive, economic advantages. Thus, Florida's future, and the future of each Floridian, depends heavily on the state putting in place those programs essential to building and maintaining a highly competitive economy. One of those essential programs is a top quality, highly productive state higher education delivery system.

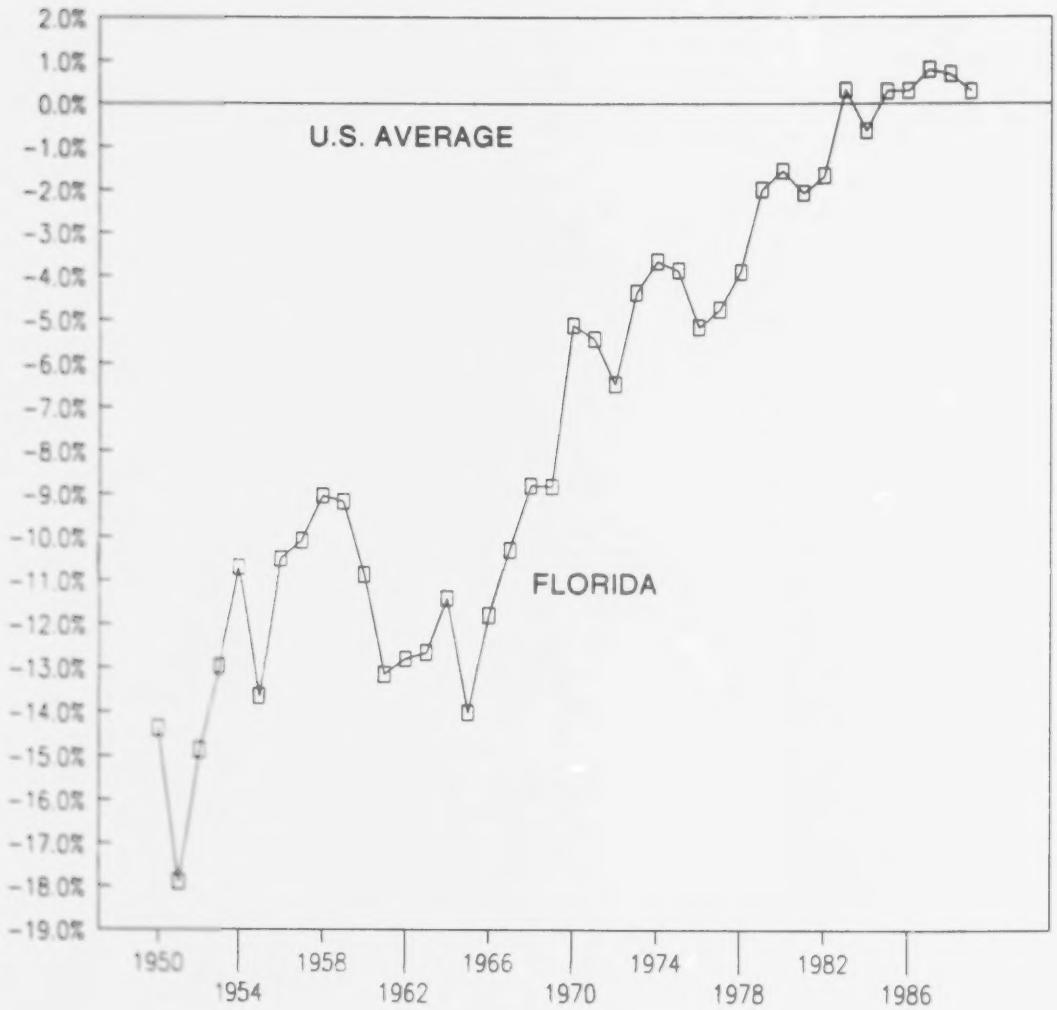
EXHIBIT 3-9

RECENT ACTIONS TAKEN BY STATES TO INCREASE THE COMPETITIVE POSITION OF THEIR WORK FORCES

- Washington is adding five new branch campuses and expanding enrollments at existing institutions to achieve much larger higher education enrollment goals
- Montana has established a gubernatorial commission to conduct a detailed review of the state's higher education system
- Arkansas has established a science and technology authority to encourage, establish, and support applied and basic research within the college and university system
- Iowa has established a $100 million excellence in education fund to keep the state's best teachers at work in the classroom and to develop a performance-based pay program to enhance quality in Iowa's public schools
- Michigan has established a Governor's Commission on Jobs and Economic Development to develop, among other things, a set of basic employability standards for entry-level jobs of the future so that the state's educational institutions can ensure that graduates have employable skills
- California is currently planning to add 15 to 20 new higher education branch campuses and/or institutions to educate its people
- New Jersey has established seven advanced technology centers to promote technological innovation, academic excellence and industrial growth. The centers operate in conjunction with the state's universities and involve significant input from private industry
- Oregon has passed a lottery bill dedicated to economic development. A significant amount of the lottery proceeds is being used to fund capital and equipment projects for the state's universities
- Oregon has also established a gubernatorial commission to study the higher education needs of Portland, its largest metropolitan area
- Illinois has established the Illinois Resource Network as a statewide electronic directory that provides names, campus addresses, current research activities, and educational background of approximately 6,000 university faculty. The network enables both business and government executives to identify potentially helpful university resources
- Connecticut has just recently completed a comprehensive management review of its entire higher education system
- Missouri has established four innovation centers to provide technical, managerial, financial and other assistance to new advanced technology firms
- Virginia has established a Center for Innovative Technology (CIT) to provide technology development, technology transfer and commercialization of technology. CIT operates by forming partnerships with Virginia's universities and providing up to 50% funding for applied research projects
- Utah has established a center for excellence program which has already awarded $2.4 million to start-up grants to 15 centers and is planning grants to seven others. The centers focus on projects involving biomedical research, engineering, fuels, space, and telecommunications

EXHIBIT 3-10

PERCENT FLORIDA'S PER CAPITA INCOME ABOVE OR BELOW NATIONAL AVERAGE, 1950–1989



The economic challenge facing Florida, as the 21st century approaches, is clearly stated in the following excerpt from the Project Cornerstone Report[5] sponsored by the Florida Chamber of Commerce:

> *In the 1990's and beyond, Florida can be a leadership economy that helps set the pace for the rest of the nation. Already a leader in population and employment growth, Florida can build a world-competitive economy based on a dynamic mix of productive manufacturingand service industries that create a rising standard of living for all Florida residents. Moving well beyond regional leadership, Florida can be a leader in national and international arenas in the next decade.*
>
> *However, to be a leadership economy Florida must learn to compete nationally and internationally on the basis of higher productivity by adding value to products and services, not simply on the basis of low cost. Florida traditionally has seen low costs as its competitive advantage, but in the new global economy, economic advantage comes from higher productivity and added value.*
>
> *Achieving this vision of Florida's future requires a commitment by the state's leaders to build stronger economic foundations in **high-quality human resources, accessible technology,** capital availability, and forward-looking physical infrastructure while maintaining a high quality of life, a competitive tax and regulatory environment, and strong economic development programs. These are the new elements of a competitive business climate that are required to add value to Florida's products and services and generate increasing real income and employment for Florida's people. These critical foundations are required for the growth of dynamic industrial clusters in Florida ranging from biomedical, information and space industries to business services, tourism and experience industries, and value-added agriculture.*
>
> *In short, Florida's potential is great, but its economic future is not guaranteed. In fact, Florida faces a number of major challenges. Florida's current industrial structure and economic **foundations are not yet adequate** for meeting the competitive future ahead and for generating high real incomes for the state's workers. Significant reductions in defense spending could threaten Florida's technology industries, and Florida remains vulnerable to major shifts in retirement patterns or tourism. Growing high-productivity industries in the future will require correcting competitive weaknesses in Florida's **current human resource, technology,** capital, and transportation foundations. (emphasis added)*

3.8 Florida's Higher Education Goals and Performance

Given the importance of higher education to Florida's future and to the future of each Floridan, three important questions become:

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[5]Cornerstone: Foundations For Economic Leadership, Florida Chamber of Commerce, Tallahassee, 1989, page 1.

1. What is Florida's higher education productivity goal?

2. What is Florida's goal in providing higher eduction opportunities to its citizens?

3. How does the performance of Florida's higher education system compare to the higher education systems in those states whose economies have been successful?

3.8.1 State Higher Education Productivity Goals

Florida has not adopted higher education productivity goals.

3.8.2 State Higher Education Access Goals

Florida has not adopted goals for providing access to higher education opportunities for its citizens.

3.8.3 The Performance of Florida's Higher Education Systems

Because of the competitive environment within which Florida's economy and society must perform, the performance of the state's higher education system can best be assessed by comparing Florida's higher education system to the systems in:

- the other states with high economic growth in the 1979-89 time period; (Exhibit 3-8); and
- those states whose per capita income has been consistently above the national average since 1950.[6]

State comparisons are presented in terms of:

- accessibility to higher education institutions;
- proportion of higher education enrollments in community colleges versus four year institutions;
- proportion of higher education enrollments in independent versus public institutions;
- higher education degree production per 100,000 working age population (w.a.p.); and
- higher education enrollments per 100,000 per w.a.p.

---

[6]Ten states (California, Connecticut, Delaware, Illinois, Maryland, Massachusetts, Michigan, New Jersey, New York and Vermont) have had incomes above the national average since 1950. Another 2 states, Alaska and Nevada, also have had per capita incomes consistently above the national average but are excluded here because of the peculiar circumstances causing their high incomes.

Accessibility to Higher Education. Accessibility to higher education is a significant factor in a state's ability to educate its people. For the purpose of this analysis, we measured accessibility in terms of the number of institutions per 1,000,000 working age population[7] (exhibits 3-11 through 3-14).

The following facts can be derived from exhibits 3-11, 3-12, 3-13, and 3-14:

- Florida ranks 47th nationally (Exhibit 3-11) in total higher education institutions per 1,000,000 working age population (w.a.p.) with Florida having 19.72 compared to a national average of 32.98, a high growth states average of 40.56 and a consistent economic strong state average of 38.09.

- Florida ranks 48th nationally (Exhibit 3-12) in total (public and private) graduate research universities per 1,000,000 w.a.p. with Florida having .66 compared to a national average of 1.5, a high growth states average of 1.8 and a consistently strong state average of 2.00.

- Florida ranks 46th nationally (Exhibit 3-13) in total other four-year institutions per 1,000,000 w.a.p. with Florida having 10.19 compared to a national average of 18.4 and a high growth states average of 24.8, and a consistently strong state average of almost 24.0.

- Florida ranks 46th nationally (Exhibit 3-14) in total two-year institutions per 1,000,000 w.a.p. with Florida having 8.86 compared to a national average of 12.9, a high growth states average of 14.0, and a consistently strong state average of 12.14.

The accessibility of Florida's higher education institutions is significantly below that of the other states whose economies are performing well.

Proportion of Higher Education Enrollments in Public vs. Private Institutions. Private higher education institutions are a significant state resource, providing higher education services to the state's citizens at little or no cost to the state's tax payers. Thus, to the extent that a state can develop a large independent higher education sector, it can reduce the amount of tax revenues that have to be collected to support public institutions.

As shown in exhibit 3-15, 11 of the 13 states with the highest economic growth and 6 of the 10 states with consistently strong economies have more than 20 percent of their students enrolled in private institutions.

Although Florida has a well developed private higher education sector, the state still does not have the high proportion of private higher education institutions and enrollments that many other states have. As shown earlier in exhibit 3-11 and in the following exhibit 3-15:

- Florida has fewer total private colleges and universities per 1,000,000 w.a.p. than 38 of the other states (exhibit 3-11) with

[7] Working age population (w.a.p.) is defined as ages 18-44.

EXHIBIT 3-11

NUMBER OF INSTITUTIONS OF HIGHER EDUCATION PER
1,000,000 WORKING AGE POPULATION IN THE FIFTY STATES

STATE	GRADUATE/ RESEARCH UNIVERSITIES		OTHER 4-YEAR INSTITUTIONS		2-YEAR INSTITUTIONS		TOTAL		TOTAL INSTITUTIONS PER 1,000,000 W.A.P.	NATIONAL RANK
	PUBLIC	PRIVATE	PUBLIC	PRIVATE	PUBLIC	PRIVATE	PUBLIC	PRIVATE		
Vermont a/b/	4.08	0.00	12.24	57.14	8.16	8.16	24.49	65.31	89.80	1
North Dakota	6.92	0.00	13.84	13.84	27.68	3.46	48.44	17.30	65.74	2
South Dakota	7.02	0.00	21.05	24.56	0.00	10.53	28.07	35.09	63.16	3
Maine a/	2.02	0.00	14.11	26.21	10.08	10.08	26.21	36.29	62.50	4
New Hampshire a/	2.16	0.00	6.48	25.92	17.28	8.64	25.92	34.56	60.48	5
Alaska	3.77	0.00	7.55	11.32	33.96	0.00	45.28	11.32	56.60	6
Iowa	1.71	0.85	0.85	28.99	15.35	4.26	17.90	34.10	52.00	7
Kansas	2.90	0.00	4.83	19.31	20.27	2.90	27.99	22.20	50.19	8
Nebraska	1.50	1.50	9.00	19.49	16.49	1.50	26.99	22.49	49.48	9
Montana	5.76	0.00	11.53	8.65	11.53	11.53	28.82	20.17	48.99	10
Massachusetts a/b/	0.39	2.72	5.05	25.24	6.60	6.99	12.04	34.95	46.99	11
Alabama	1.18	0.00	8.26	10.03	21.83	5.31	31.27	15.34	46.61	12
North Carolina a/	0.72	0.72	5.06	12.65	20.97	5.06	26.75	18.44	45.19	13
Missouri	0.48	0.96	5.74	24.38	7.17	5.26	13.38	30.59	43.98	14
Pennsylvania	0.62	0.82	4.73	21.60	7.41	8.43	12.75	30.86	43.61	15
South Carolina	1.35	0.00	6.73	13.46	14.13	6.06	22.21	19.52	41.72	16
New York a/b/	0.27	1.61	5.36	21.83	5.89	6.29	11.52	29.73	41.25	17
Tennessee	0.49	0.49	4.39	20.97	6.83	6.83	11.70	28.28	39.98	18
Minnesota	0.54	0.00	4.90	17.98	12.53	3.81	17.98	21.80	39.78	19
Mississippi	1.89	0.00	6.60	10.37	15.08	5.66	23.56	16.02	39.59	20
Oregon	1.67	0.00	5.00	19.18	10.84	0.83	17.51	20.02	37.53	21
Wyoming	4.17	0.00	0.00	0.00	29.17	4.17	33.33	4.17	37.50	22
West Virginia	1.27	0.00	13.92	11.39	5.06	5.06	20.25	16.46	36.71	23
Delaware b/	3.62	0.00	3.62	14.49	10.87	3.62	18.12	18.12	36.23	24
Connecticut a/b/	0.74	0.74	4.43	14.77	12.56	2.95	17.73	18.46	36.19	25
Arkansas	1.06	0.00	9.53	10.59	10.59	4.24	21.19	14.83	36.02	26
Kentucky	1.26	0.00	3.77	13.82	8.17	8.17	13.19	21.98	35.18	27
Oklahoma	1.43	0.71	8.57	9.29	10.71	2.86	20.71	12.86	33.57	28
Colorado	1.28	0.64	7.67	8.31	9.59	5.75	18.54	14.71	33.25	29
New Mexico	3.14	0.00	6.29	4.72	18.87	0.00	28.30	4.72	33.02	30
Illinois b/	0.61	0.81	1.83	17.68	9.55	2.64	11.99	21.13	32.91	31
Indiana	1.71	0.43	4.69	15.79	5.98	3.84	12.38	20.06	32.44	32
Ohio	1.78	0.22	3.12	13.81	8.47	4.23	13.37	18.27	31.63	33
Rhode Island a/	2.40	0.00	2.40	24.04	2.40	0.00	7.21	24.04	31.25	34
Michigan b/	0.25	1.77	3.30	16.48	4.31	4.56	7.86	22.81	30.67	35
Wisconsin	0.49	0.49	5.91	14.78	7.88	0.99	14.29	16.26	30.54	36
Georgia a/	0.37	0.37	6.30	10.38	6.67	5.93	13.35	16.69	30.03	37
Hawaii	2.08	0.00	4.17	10.42	12.50	0.00	18.75	10.42	29.17	38
Virginia a/	1.13	0.00	4.53	11.71	9.06	1.89	14.73	13.60	28.32	39
Maryland a/b/	0.50	0.50	5.98	4.99	9.47	1.50	15.95	11.96	27.92	40
Washington	0.98	0.00	1.97	8.85	12.79	0.98	15.74	9.84	25.58	41
California b/	0.16	0.33	2.47	11.03	8.72	1.89	11.36	13.25	24.61	42
Idaho	2.37	0.00	7.11	7.11	4.74	2.37	14.22	9.48	23.70	43
Arizona	1.42	0.00	0.71	6.40	11.37	2.84	13.50	9.24	22.74	44
Texas	0.82	0.54	4.48	6.93	8.29	1.09	13.59	8.56	22.15	45
Nevada	2.26	0.00	2.26	4.52	9.05	2.26	13.57	6.79	20.36	46
Utah	2.87	1.44	2.87	1.44	7.18	4.31	12.93	7.18	20.11	47
FLORIDA a/	0.44	0.22	1.55	8.64	6.20	2.66	8.20	11.52	19.72	48
New Jersey a/b/	0.31	0.63	4.07	7.51	5.32	1.25	9.71	9.39	19.10	49
Louisiana	0.51	1.03	6.67	4.10	3.08	1.03	10.26	6.16	16.42	50
WEIGHTED AVERAGE	0.89	0.61	4.54	13.91	9.17	3.78	14.60	18.39	32.98	
HIGH GROWTH STATES AVG	1.19	0.58	5.48	19.31	9.28	4.72	15.95	24.61	40.56	
CONSIST. STRONG STATES AV	1.09	0.91	4.83	19.12	8.14	4.00	14.06	24.03	38.09	

Source: Digest of Education Statistics, 1988
U.S. Bureau of the Census, 1986

a/ High Growth States
b/ Consistently Strong States

NUMBER OF GRADUATE/RESEARCH UNIVERSITIES PER 1,000,000 WORKING AGE POPULATION IN THE FIFTY STATES

STATE	PUBLIC	PRIVATE	TOTAL	NATIONAL RANK
South Dakota	7.02	0.00	7.02	1
North Dakota	6.92	0.00	6.92	2
Montana	5.76	0.00	5.76	3
Utah	2.87	1.44	4.31	4
Wyoming	4.17	0.00	4.17	5
Vermont a/b/	4.08	0.00	4.08	6
Alaska	3.77	0.00	3.77	7
Delaware b/	3.62	0.00	3.62	8
New Mexico	3.14	0.00	3.14	9
Massachusetts a/b/	0.39	2.72	3.11	10
Nebraska	1.50	1.50	3.00	11
Kansas	2.90	0.00	2.90	12
Iowa	1.71	0.85	2.56	13
Rhode Island a/	2.40	0.00	2.40	14
Idaho	2.37	0.00	2.37	15
Nevada	2.26	0.00	2.26	16
New Hampshire a/	2.16	0.00	2.16	17
Oklahoma	1.43	0.71	2.14	18
Indiana	1.71	0.43	2.13	19
Hawaii	2.08	0.00	2.08	20
Michigan b/	0.25	1.77	2.03	21
Maine a/	2.02	0.00	2.02	22
Ohio	1.78	0.22	2.00	23
Colorado	1.28	0.64	1.92	24
Mississippi	1.89	0.00	1.89	25
New York a/b/	0.27	1.61	1.87	26
Oregon	1.67	0.00	1.67	27
Louisiana	0.51	1.03	1.54	28
Connecticut a/b/	0.74	0.74	1.48	29
North Carolina a/	0.72	0.72	1.45	30
Pennsylvania	0.62	0.82	1.44	31
Missouri	0.48	0.96	1.43	32
Illinois b/	0.61	0.81	1.42	33
Arizona	1.42	0.00	1.42	34
Texas	0.82	0.54	1.36	35
South Carolina	1.35	0.00	1.35	36
West Virginia	1.27	0.00	1.27	37
Kentucky	1.26	0.00	1.26	38
Alabama	1.18	0.00	1.18	39
Virginia a/	1.13	0.00	1.13	40
Arkansas	1.06	0.00	1.06	41
Maryland a/b/	0.50	0.50	1.00	42
Wisconsin	0.49	0.49	0.99	43
Washington	0.98	0.00	0.98	44
Tennessee	0.49	0.49	0.98	45
New Jersey a/b/	0.31	0.63	0.94	46
Georgia a/	0.37	0.37	0.74	47
FLORIDA a/	0.44	0.22	0.66	48
Minnesota	0.54	0.00	0.54	49
California b/	0.16	0.33	0.49	50
WEIGHTED AVERAGE	0.89	0.61	1.50	
HIGH GROWTH STATES AVERAGE	1.19	0.58	1.77	
CONSISTENTLY STRONG STATES AVERAGE	1.09	0.91	2.00	

Source: Digest of Education Statistics, 1988
U.S. Bureau of the Census, 1986

a/ High Growth States
b/ Consistently Strong States

EXHIBIT 3-13

NUMBER OF OTHER FOUR YEAR INSTITUTIONS PER 1,000,000 WORKING AGE POPULATION IN THE FIFTY STATES

STATE	PUBLIC	PRIVATE	TOTAL	NATIONAL RANK
Vermont a/b/	12.24	57.14	69.39	1
South Dakota	21.05	24.56	45.61	2
Maine a/	14.11	26.21	40.32	3
New Hampshire a/	6.48	25.92	32.40	4
Massachusetts a/b/	5.05	25.24	30.29	5
Missouri	5.74	24.38	30.11	6
Iowa	0.85	28.99	29.84	7
Nebraska	9.00	19.49	28.49	8
North Dakota	13.84	13.84	27.68	9
New York a/b/	5.36	21.83	27.19	10
Rhode Island a/	2.40	24.04	26.44	11
Pennsylvania	4.73	21.60	26.33	12
Tennessee	4.39	20.97	25.35	13
West Virginia	13.92	11.39	25.32	14
Oregon	5.00	19.18	24.19	15
Kansas	4.83	19.31	24.13	16
Minnesota	4.90	17.98	22.89	17
Wisconsin	5.91	14.78	20.69	18
Indiana	4.69	15.79	20.49	19
South Carolina	6.73	13.46	20.19	20
Montana	11.53	8.65	20.17	21
Arkansas	9.53	10.59	20.13	22
Michigan b/	3.30	16.48	19.77	23
Illinois b/	1.83	17.68	19.50	24
Connecticut a/b/	4.43	14.77	19.20	25
Alaska	7.55	11.32	18.87	26
Alabama	8.26	10.03	18.29	27
Delaware b/	3.62	14.49	18.12	28
Oklahoma	8.57	9.29	17.86	29
North Carolina a/	5.06	12.65	17.72	30
Kentucky	3.77	13.82	17.59	31
Mississippi	6.60	10.37	16.97	32
Ohio	3.12	13.81	16.93	33
Georgia a/	6.30	10.38	16.69	34
Virginia a/	4.53	11.71	16.24	35
Colorado	7.67	8.31	15.98	36
Hawaii	4.17	10.42	14.58	37
Idaho	7.11	7.11	14.22	38
California b/	2.47	11.03	13.50	39
New Jersey a/b/	4.07	7.51	11.58	40
Texas	4.48	6.93	11.41	41
New Mexico	6.29	4.72	11.01	42
Maryland a/b/	5.98	4.99	10.97	43
Washington	1.97	8.85	10.82	44
Louisiana	6.67	4.10	10.77	45
FLORIDA a/	1.55	8.64	10.19	46
Arizona	0.71	6.40	7.11	47
Nevada	2.26	4.52	6.79	48
Utah	2.87	1.44	4.31	49
Wyoming	0.00	0.00	0.00	50
WEIGHTED AVERAGE	4.54	13.91	18.45	
HIGH GROWTH STATES AVERAGE	5.48	19.31	24.79	
CONSISTENTLY STRONG STATES AVERAGE	4.83	19.12	23.95	

Source: Digest of Education Statistics, 1988
U.S. Bureau of the Census, 1986

a/ High Growth States
b/ Consistently Strong States

EXHIBIT 3-14

NUMBER TWO YEAR INSTITUTIONS PER 1,000,000 WORKING AGE POPULATION IN THE FIFTY STATES

STATE	PUBLIC	PRIVATE	TOTAL	NATIONAL RANK
Alaska	33.96	0.00	33.96	1
Wyoming	29.17	4.17	33.33	2
North Dakota	27.68	3.46	31.14	3
Alabama	21.83	5.31	27.14	4
North Carolina a/	20.97	5.06	26.03	5
New Hampshire a/	17.28	8.64	25.92	6
Kansas	20.27	2.90	23.17	7
Montana	11.53	11.53	23.05	8
Mississippi	15.08	5.66	20.74	9
South Carolina	14.13	6.06	20.19	10
Maine a/	10.08	10.08	20.16	11
Iowa	15.35	4.26	19.61	12
New Mexico	18.87	0.00	18.87	13
Nebraska	16.49	1.50	17.99	14
Minnesota	12.53	3.81	16.35	15
Kentucky	8.17	8.17	16.33	16
Vermont a/b/	8.16	8.16	16.33	17
Pennsylvania	7.41	8.43	15.84	18
Connecticut a/b/	12.56	2.95	15.51	19
Colorado	9.59	5.75	15.35	20
Arkansas	10.59	4.24	14.83	21
Delaware b/	10.87	3.62	14.49	22
Arizona	11.37	2.84	14.21	23
Washington	12.79	0.98	13.77	24
Tennessee	6.83	6.83	13.65	25
Massachusetts a/b/	6.60	6.99	13.59	26
Oklahoma	10.71	2.86	13.57	27
Ohio	8.47	4.23	12.70	28
Georgia a/	6.67	5.93	12.61	29
Hawaii	12.50	0.00	12.50	30
Missouri	7.17	5.26	12.43	31
Illinois b/	9.55	2.64	12.19	32
New York a/b/	5.89	6.29	12.19	33
Oregon	10.84	0.83	11.68	34
Utah	7.18	4.31	11.49	35
Nevada	9.05	2.26	11.31	36
Maryland a/b/	9.47	1.50	10.97	37
Virginia a/	9.06	1.89	10.95	38
California b/	8.72	1.89	10.62	39
South Dakota	0.00	10.53	10.53	40
West Virginia	5.06	5.06	10.13	41
Indiana	5.98	3.84	9.82	42
Texas	8.29	1.09	9.38	43
Michigan b/	4.31	4.56	8.87	44
Wisconsin	7.88	0.99	8.87	45
FLORIDA a/	6.20	2.66	8.86	46
Idaho	4.74	2.37	7.11	47
New Jersey a/b/	5.32	1.25	6.57	48
Louisiana	3.08	1.03	4.10	49
Rhode Island a/	2.40	0.00	2.40	50
WEIGHTED AVERAGE	9.17	3.78	12.95	
HIGH GROWTH STATES AVERAGE	9.28	4.72	14.00	
CONSISTENTLY STRONG STATES AVERAGE	8.14	4.00	12.14	

Source: Digest of Education Statistics, 1988
U.S. Bureau of the Census, 1986

a/ High Growth States
b/ Consistently Strong States

PERCENTAGE OF HIGHER EDUCATION ENROLLMENTS IN PUBLIC AND PRIVATE INSTITUTIONS FOR ALL STATES, Fall 1987

STATE	HIGH ECONOMIC GROWTH STATES	CONSISTENTLY STRONG ECONOMIC STATES	PUBLIC	PRIVATE
Nevada			99.17%	0.83%
New Mexico			97.56%	2.44%
Wyoming			96.71%	3.29%
Alaska			95.08%	4.92%
Arizona			94.47%	5.53%
North Dakota			92.40%	7.60%
Montana			89.81%	10.19%
Kansas			89.63%	10.37%
Mississippi			88.85%	11.15%
West Virginia			87.29%	12.71%
Alabama			87.15%	12.85%
Colorado			86.77%	13.23%
Texas			86.25%	13.75%
Louisiana			85.18%	14.82%
Washington			85.15%	14.85%
California		X	85.05%	14.95%
Arkansas			84.63%	15.37%
Wisconsin			84.63%	15.37%
Oregon			84.44%	15.56%
Oklahoma			84.06%	15.94%
Michigan		X	83.85%	16.15%
Maryland	X	X	83.43%	16.57%
Virginia	X		83.16%	16.84%
Delaware		X	82.31%	17.69%
Nebraska			81.90%	18.10%
Hawaii			80.46%	19.54%
FLORIDA	X		78.93%	21.07%
Kentucky			77.94%	22.06%
New Jersey	X	X	77.92%	22.08%
South Carolina			77.74%	22.26%
North Carolina	X		76.78%	23.22%
South Dakota			76.25%	23.75%
Indiana			75.70%	24.30%
Georgia	X		74.87%	25.13%
Minnesota			74.75%	25.25%
Ohio			74.75%	25.25%
Idaho			73.53%	26.47%
Tennessee			72.53%	27.47%
Illinois		X	72.00%	28.00%
Maine	X		70.84%	29.16%
Iowa			70.08%	29.92%
Utah			67.09%	32.91%
Missouri			66.84%	33.16%
Connecticut	X	X	59.67%	40.33%
Vermont	X	X	55.93%	44.07%
New York	X	X	54.53%	45.47%
Pennsylvania			54.31%	45.69%
New Hampshire	X		53.44%	46.56%
Rhode Island	X		45.78%	54.22%
Massachusetts	X	X	40.51%	59.49%
US AVERAGE			78.04%	21.96%
HIGH ECONOMIC GROWTH STATES' AVERAGE			65.83%	34.17%
CONSISTENTLY STRONG STATES' AVERAGE			69.52%	30.48%

Source: Digest of Education Statistics, 1989

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Florida having 12.04 private institutions per 1,000,000 w.a.p. compared to a national average of 20.0 and a high economic growth state average of 25.66.

- Florida currently educates only 21.07 percent of its total higher education enrollment in private colleges and universities compared to a high economic growth state average of 30.48 percent (exhibit 3-15).

As a result of its somewhat smaller private higher education sector, the responsibility of providing higher education services to Florida's citizens has, historically, fallen heavier on the state's public institutions and taxpayers. As a matter of public policy, the Postsecondary Education Planning Commission needs to determine the extent to which independent institutions can provide a cost effective method of meeting the state's higher education goals and to establish numerical enrollment (market) share goals for that sector. Those market share goals should be one of the criteria utilized in deciding when and where to establish new public institutions.

3.8.4 Higher Education Degree Production in Florida and Competing States

A strong indicator of how well a state is providing higher education for its citizens is the number of degrees granted per 100,000 w.a.p. As shown in exhibit 3-16, in 1976-77, Florida ranked 40th in the nation in bachelor's degrees granted per 100,000 w.a.p.. By 1986-87, (exhibit 3-17) Florida's rank had dropped to 47th with Florida producing 30 percent fewer bachelor's degrees per 100,000 w.a.p. in 1986-87 than in 1976-77.

At the master's degree level, Florida ranked 37th (exhibit 3-18) in 1986-87 with a production of 197 degrees per 100,000 w.a.p. compared to a national average of 257.

At the doctoral level, Florida ranked 32nd (exhibit 3-19) in 1986-87 with a production of almost 24 degrees per 100,000 w.a.p. compared to a national average of 29.

When compared to the degree production rates of the high economic growth states and the consistently strong states, Florida's performance looks particularly low. As shown in exhibit 3-20:

- Florida granted significantly fewer degrees per 100,000 w.a.p. at all three degree levels (bachelor's, master's and doctoral) than the averages for both the high growth and consistently strong states
- at the bachelor's degree level, on a 100,000 w.a.p. basis:
  - the high economic growth states granted 52 percent more total degrees than Florida
  - the consistent economically strong states granted 42 percent more total degrees than Florida
  - Florida's degree production is significantly lower in:

EXHIBIT 3-16

TOTAL BACHELOR'S DEGREES AWARDED PER 100,000 WORKING AGE POPULATION ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	AWARDED BY STATE'S INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED AWARDS TO STATE RESIDENTS b/	STATE RANKING
Massachusetts	1,618.09	0.8827	1,428.26	1
Montana	1,203.49	1.1570	1,392.48	2
North Dakota	1,471.68	0.9376	1,379.88	3
South Dakota	1,296.88	1.0289	1,334.40	4
Iowa	1,354.14	0.9698	1,313.23	5
Utah	1,611.73	0.8039	1,295.65	6
Nebraska	1,272.37	1.0114	1,286.88	7
New Hampshire	1,331.32	0.9584	1,275.98	8
Rhode Island	1,829.08	0.6963	1,273.60	9
Wisconsin	1,224.24	0.9723	1,190.32	10
Minnesota	1,105.73	1.0354	1,144.85	11
New York	1,088.95	1.0379	1,130.27	12
Maine	1,014.46	1.0711	1,086.59	13
Pennsylvania	1,117.20	0.9710	1,084.79	14
Connecticut	893.64	1.1933	1,066.35	15
Kansas	1,123.22	0.9344	1,049.49	16
Oklahoma	980.10	1.0498	1,028.87	17
Indiana	1,128.64	0.9031	1,019.24	18
Vermont	1,442.57	0.7019	1,012.49	19
New Jersey	716.16	1.4122	1,011.35	20
Illinois	956.57	1.0334	988.52	21
Delaware	1,137.72	0.8679	987.41	22
Michigan	959.12	1.0098	968.48	23
Missouri	1,017.83	0.9274	943.89	24
Virginia	889.02	1.0077	895.91	25
Oregon	912.19	0.9538	870.08	26
West Virginia	944.66	0.9202	869.31	27
Maryland	825.07	1.0523	868.23	28
Colorado	965.29	0.8970	865.86	29
Mississippi	861.07	0.9703	835.47	30
Washington	855.08	0.9737	832.59	31
Louisiana	841.42	0.9630	810.26	32
South Carolina	829.40	0.9446	783.47	33
Wyoming	697.42	1.1200	781.12	34
North Carolina	888.31	0.8738	776.19	35
Ohio	755.52	1.0189	769.76	36
Arkansas	742.11	1.0242	760.09	37
Hawaii	718.16	1.0535	756.56	38
Texas	776.81	0.9709	754.19	39
Tennessee	828.75	0.9032	748.52	40
Arizona	792.95	0.9142	724.92	41
Kentucky	733.52	0.9813	719.79	42
Alaska	355.47	2.0214	718.53	43
New Mexico	699.22	1.0249	716.66	44
California	720.70	0.9664	696.46	45
Georgia	692.77	0.9772	676.90	46
FLORIDA	670.81	0.9970	668.80	47
Alabama	756.79	0.8822	667.66	48
Idaho	719.19	0.8971	645.18	49
Nevada	420.22	1.1247	472.61	50
WEIGHTED AVERAGE			900.55	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into stat + Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted degrees per 100,000 by adjustment factor

EXHIBIT 3-17

TOTAL MASTER'S DEGREES AWARDED PER 100,000 WORKING AGE POPULATION ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	AWARDED BY STATE'S INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED AWARDS TO STATE RESIDENTS b/	STATE RANKING
Massachusetts	585.68	0.8827	516.97	1
Connecticut	371.76	1.1933	443.61	2
New York	375.86	1.0379	390.11	3
Illinois	350.94	1.0334	362.66	4
Missouri	358.66	0.9274	332.60	5
Oklahoma	284.73	1.0498	298.90	6
Michigan	293.48	1.0098	296.34	7
New Hampshire	303.55	0.9584	290.93	8
Rhode Island	409.69	0.6963	285.27	9
New Jersey	200.74	1.4122	283.49	10
Maryland	265.36	1.0523	279.24	11
Utah	344.06	0.8039	276.59	12
New Mexico	266.30	1.0249	272.94	13
Kansas	288.10	0.9344	269.19	14
Indiana	295.42	0.9031	266.79	15
Montana	222.38	1.1570	257.31	16
South Dakota	249.65	1.0289	256.88	17
Wisconsin	263.86	0.9723	256.55	18
Alaska	125.00	2.0214	252.67	19
Nebraska	248.80	1.0114	251.63	20
California	250.10	0.9664	241.69	21
Colorado	260.71	0.8970	233.86	22
Iowa	237.15	0.9698	229.98	23
Georgia	232.27	0.9772	226.97	24
Pennsylvania	226.90	0.9710	220.32	25
Oregon	230.81	0.9538	220.15	26
Texas	225.67	0.9709	219.10	27
Ohio	214.21	1.0189	218.25	28
Virginia	208.76	1.0077	210.38	29
Arkansas	202.74	1.0242	207.65	30
West Virginia	222.52	0.9202	204.77	31
South Carolina	216.49	0.9446	204.50	32
Kentucky	208.40	0.9813	204.50	33
Minnesota	197.41	1.0354	204.39	34
Louisiana	208.35	0.9630	200.63	35
Hawaii	188.78	1.0535	198.87	36
FLORIDA	197.36	0.9970	196.76	37
Mississippi	200.84	0.9703	194.87	38
North Dakota	207.69	0.9376	194.74	39
Washington	191.33	0.9737	186.29	40
Arizona	200.28	0.9142	183.10	41
North Carolina	207.99	0.8738	181.73	42
Delaware	208.54	0.8679	180.99	43
Vermont	249.40	0.7019	175.04	44
Tennessee	193.46	0.9032	174.73	45
Alabama	194.87	0.8822	171.92	46
Wyoming	148.07	1.1200	165.84	47
Idaho	179.15	0.8971	160.71	48
Maine	99.41	1.0711	106.47	49
Nevada	92.17	1.1247	103.67	50
WEIGHTED AVERAGE			257.13	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into state) + Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted degrees per 100,000 by adjustment factor

EXHIBIT 3-18

TOTAL DOCTORAL DEGREES AWARDED PER 100,000 WORKING AGE POPULATION ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	AWARDED BY STATE'S INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED AWARDS TO STATE RESIDENTS b	STATE RANKING
Massachusetts	73.44	0.8827	64.82	1
Iowa	51.92	0.9698	50.35	2
Illinois	41.63	1.0334	43.02	3
Utah	51.65	0.8039	41.52	4
Wisconsin	38.30	0.9723	37.23	5
Indiana	40.97	0.9031	37.00	6
New York	34.96	1.0379	36.29	7
Colorado	40.43	0.8970	36.27	8
Maryland	33.86	1.0523	35.63	9
Rhode Island	50.12	0.6963	34.90	10
Kansas	37.33	0.9344	34.88	11
Michigan	33.15	1.0098	33.47	12
New Mexico	31.99	1.0249	32.79	13
Wyoming	29.18	1.1200	32.69	14
Nebraska	32.28	1.0114	32.65	15
Arizona	35.31	0.9142	32.28	16
California	31.71	0.9664	30.64	17
Delaware	34.16	0.8679	29.65	18
Minnesota	28.58	1.0354	29.59	19
New Jersey	20.78	1.4122	29.35	20
Hawaii	27.14	1.0535	28.59	21
Washington	28.87	0.9737	28.11	22
Pennsylvania	28.45	0.9710	27.63	23
Oregon	28.75	0.9538	27.42	24
Texas	27.28	0.9709	26.49	25
Oklahoma	24.75	1.0498	25.98	26
Virginia	25.31	1.0077	25.51	27
Tennessee	27.60	0.9032	24.92	28
North Dakota	26.57	0.9376	24.92	29
Mississippi	25.52	0.9703	24.76	30
North Carolina	28.09	0.8738	24.55	31
FLORIDA	23.84	0.9970	23.77	32
South Dakota	22.57	1.0289	23.22	33
Georgia	23.76	0.9772	23.22	34
Missouri	24.79	0.9274	22.99	35
Ohio	22.21	1.0189	22.63	36
Connecticut	16.68	1.1933	19.90	37
South Carolina	17.62	0.9446	16.64	38
Kentucky	16.92	0.9813	16.60	39
Montana	14.24	1.1570	16.48	40
Louisiana	15.60	0.9630	15.03	41
New Hampshire	14.82	0.9584	14.21	42
West Virginia	13.99	0.9202	12.88	43
Arkansas	12.00	1.0242	12.29	44
Vermont	16.47	0.7019	11.56	45
Idaho	11.14	0.8971	9.99	46
Alabama	9.85	0.8822	8.69	47
Nevada	6.96	1.1247	7.82	48
Alaska	2.73	2.0214	5.53	49
Maine	4.95	1.0711	5.30	50
WEIGHTED AVERAGE			29.25	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into state) + Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted degrees per 100,000 by adjustment factor

EXHIBIT 3-19

TOTAL PROFESSIONAL DEGREES AWARDED PER 100,000 WORKING AGE POPULATION
ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	AWARDED BY STATE'S INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED AWARDS TO TATE RESIDENTS b	STATE RANKING
Massachusetts	143.65	0.8827	126.80	1
Nebraska	112.91	1.0114	114.20	2
Iowa	112.30	0.9698	108.90	3
Missouri	107.62	0.9274	99.80	4
Illinois	89.42	1.0334	92.41	5
New York	82.44	1.0379	85.57	6
Minnesota	82.60	1.0354	85.53	7
New Jersey	54.37	1.4122	76.79	8
Oklahoma	72.29	1.0498	75.88	9
Georgia	72.31	0.9772	70.66	10
Oregon	74.05	0.9538	70.63	11
Louisiana	72.16	0.9630	69.49	12
Pennsylvania	70.55	0.9710	68.50	13
Kentucky	69.74	0.9813	68.43	14
Michigan	62.84	1.0098	63.45	15
California	61.63	0.9664	59.56	16
Virginia	59.02	1.0077	59.47	17
Kansas	62.86	0.9344	58.73	18
Ohio	57.42	1.0189	58.51	19
Indiana	64.32	0.9031	58.09	20
Tennessee	62.12	0.9032	56.10	21
Texas	54.57	0.9709	52.98	22
North Carolina	57.75	0.8738	50.46	23
South Dakota	48.61	1.0289	50.02	24
Maryland	47.50	1.0523	49.98	25
Connecticut	41.55	1.1933	49.58	26
Colorado	54.23	0.8970	48.64	27
South Carolina	48.87	0.9446	46.17	28
FLORIDA	45.25	0.9970	45.11	29
Washington	43.42	0.9737	42.28	30
Utah	52.22	0.8039	41.98	31
Mississippi	43.25	0.9703	41.96	32
Wisconsin	41.04	0.9723	39.90	33
West Virginia	41.86	0.9202	38.52	34
North Dakota	40.91	0.9376	38.36	35
Arkansas	34.95	1.0242	35.79	36
New Hampshire	36.12	0.9584	34.62	37
Maine	32.28	1.0711	34.57	38
Alabama	37.84	0.8822	33.39	39
Hawaii	27.96	1.0535	29.45	40
Wyoming	25.32	1.1200	28.36	41
New Mexico	26.40	1.0249	27.06	42
Montana	21.51	1.1570	24.89	43
Arizona	24.56	0.9142	22.46	44
Vermont	30.92	0.7019	21.70	45
Idaho	16.11	0.8971	14.46	46
Rhode Island	18.44	0.6963	12.84	47
Nevada	9.13	1.1247	10.27	48
Delaware	0.00	0.8679	0.00	49
Alaska	0.00	2.0214	0.00	50
WEIGHTED AVERAGE			62.54	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into st
+ Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted degrees per 100,000 by adjustment factor

EXHIBIT 3-20

COMPARISON OF UNIVERSITY DEGREES PER 100,000 WORKING AGE POPULATION (AGES 18–44) BY BROAD DEGREE FIELDS AND LEVEL OF DEGREES (1986) IN FLORIDA WITH HIGH GROWTH STATES AND CONSISTENTLY ECONOMICALLY STRONG STATES a/b/c/

TYPE OF DEGREE	DEGREES PER 100,000 WORKING AGE POPULATION c/		
	FLORIDA	HIGH GROWTH STATES a/	STRONG STATES b/
Bachelor's Degrees			
Agriculture and Natural Resources	12.37	21.72	23.66
Architecture	6.19	7.58	7.13
Business	193.70	240.54	214.65
Computer Science	31.20	46.01	40.22
Engineering and Related Technologies	70.45	83.57	87.83
Arts and Letters	105.51	207.66	203.42
Education	58.14	63.71	51.49
Health	34.68	61.80	57.85
Law	2.31	0.66	1.18
Sciences	34.18	78.17	76.02
Social Sciences	106.84	204.32	182.80
Trades	13.22	0.24	1.29
TOTAL	668.79	1015.98	947.54
Master's Degrees			
Agriculture and Natural Resources	3.60	3.94	4.39
Architecture	1.67	3.46	3.21
Business	57.16	73.20	81.59
Computer Science	5.74	13.75	12.09
Engineering and Related Technologies	11.96	24.16	26.29
Arts and Letters	12.24	35.03	41.44
Education	59.02	83.18	71.18
Health	9.88	19.22	19.50
Law	1.74	3.15	2.68
Sciences	6.02	15.17	15.16
Social Sciences	18.71	42.04	44.33
Trades	9.02	0.00	0.00
TOTAL	196.76	316.30	321.86
Doctoral Degrees			
Agriculture and Natural Resources	1.97	0.82	0.65
Architecture	0.00	0.10	0.15
Business	0.84	0.71	0.81
Computer Science	0.11	0.37	0.48
Engineering and Related Technologies	1.63	3.85	4.50
Arts and Letters	1.74	4.63	5.60
Education	8.57	5.17	5.36
Health	0.41	0.98	0.98
Law	1.14	0.05	0.06
Sciences	3.09	8.52	8.91
Social Sciences	4.29	7.13	8.00
Trades	0.00	0.00	0.00
TOTAL	23.79	32.33	35.50

a/ High Growth states are those in which per capita income has increased greater than 20% since 1978 These states include Connecticut, Georgia, Maryland, Rhode Island, North Carolina, New Hampshire, Massachusetts, New Jersey, New York, Maine, Vermont, and Virginia.

b/ Consistently economically strong states include California, Maryland, New York, Delaware, Illinois Michigan, Vermont, Massachusetts, New Jersey, Connecticut.

c/ Adjusted to reflect in & out of state migration differences. Adjusted by multiplying unadjusted data by adjustment factor. Adjustment factor=[Total Enrollment - Total enrollment/New enrollment (migration of students into state) + Total enrollment/New enrollment (migration of students out of state)]/Total Enrollment.

* agriculture and natural resources
* computer science
* engineering and related techniques
* arts and letters
* health
* sciences
* social sciences

- at the master's degree level, on a 100,000 w.a.p. basis:

  - the high economic growth states produced 61 percent more total degrees than Florida

  - the consistent economically strong states produced 64 percent more total degrees than Florida

  - Florida's degree production is significantly lower in:

    * agriculture and natural resources
    * architecture
    * business
    * computer science
    * engineering and related technologies
    * arts and letters
    * education
    * health
    * sciences
    * social sciences

- at the doctoral level, on a 100,000 w.a.p. basis:

  - the high economic growth states granted 36 percent more total degrees than Florida

  - the consistent economically strong states produced 49 percent more total degrees than Florida

  - Florida's degree production is significantly lower in:

    * computer science
    * engineering and related technologies
    * arts and letters
    * health
    * sciences
    * social sciences

  - Florida's degree production is relatively high only in:

    * education

In summary, it is clear from the above observations, that both the high economic growth states and the consistent economically strong states:

- produce dramatically more degrees at all degree levels per 100,000 w.a.p. than Florida

- produce significantly more degrees than Florida per 100,000 w.a.p. at all degree levels in the fields of:

  - arts and sciences
  - computer science
  - engineering and related technologies
  - health
  - sciences
  - social sciences

3.8.5 Higher Education Participation Rates (Enrollments) in Florida

Degrees granted per 100,000 w.a.p. provide a measure of past higher education productivity rates. Short-term future productivity rates can be measured by current higher education participation (enrollment) rates. Thus, to address the question of whether Florida's near term future degree productivity is likely to increase relative to that of other states, we compared the fall headcount and FTE [8] enrollments in Florida to those of other states.

As shown in exhibits 3-21, 3-22, 3-23 and 3-24:

- Florida ranks 23rd in the nation (exhibit 3-21) in lower division enrollments per 100,000 w.a.p., with an enrollment rate that is about 2 percent <u>below</u> the national average. It should be kept in mind, however, that meaningful comparisons of lower division enrollments among the states are not possible under current reporting guidelines. Many states provide adult vocation/technical education services through their public school systems and, hence, do not report the enrollments as lower division college enrollments as some other states do.

  Because of a large part of Florida's adult vocation/technical education is provided by the state's community colleges, Florida's lower division enrollments will appear higher relative to other states than they actual are.

- At the upper division level, where direct comparisons can be made, Florida ranks 48th in the nation with an enrollment rate that is 27 percent below the national average (exhibit 3-22).

- At the graduate level, also where appropriate comparisons can be made, Florida ranks 37th with an enrollment rate that is 29 percent below the national average (exhibit 3-23)

- At the first professional degree level, Florida ranks 33rd with an enrollment rate that is 39 percent below the national average (exhibit 3-24).

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[8] FTE measures enrollments in terms of credit hours taken and hence is a measure of both headcount and the rate at which students are progressing through an institution.

EXHIBIT 3-21

LOWER DIVISION HEADCOUNT ENROLLMENTS PER 100,000 WORKING AGE POPULATION BY STATE ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	ENROLLMENTS IN STATE INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED ENROLLMENTS OF STATE RESIDENTS b/	STATE RANKING
Alaska	7,479	2.0214	15,118	1
Arizona	11,224	0.9142	10,261	2
Illinois	9,517	1.0334	9,835	3
California	10,020	0.9664	9,683	4
Michigan	8,557	1.0098	8,640	5
Wyoming	7,526	1.1200	8,429	6
Washington	8,604	0.9737	8,378	7
Wisconsin	8,540	0.9723	8,303	8
Nevada	7,188	1.1247	8,084	9
Oklahoma	7,602	1.0498	7,980	10
New Jersey	5,380	1.4122	7,597	11
New York	7,276	1.0379	7,552	12
Oregon	7,900	0.9538	7,535	13
Kansas	8,052	0.9344	7,524	14
Maryland	7,137	1.0523	7,510	15
Virginia	7,235	1.0077	7,291	16
Connecticut	6,105	1.1933	7,285	17
Ohio	7,064	1.0189	7,197	18
North Dakota	7,666	0.9376	7,188	19
Nebraska	7,085	1.0114	7,166	20
Hawaii	6,775	1.0535	7,138	21
Massachusetts	7,984	0.8827	7,047	22
FLORIDA	6,963	0.9970	6,942	23
Iowa	7,102	0.9698	6,887	24
North Carolina	7,804	0.8738	6,819	25
Minnesota	6,216	1.0354	6,436	26
Rhode Island	9,100	0.6963	6,336	27
Montana	5,379	1.1570	6,224	28
Delaware	6,947	0.8679	6,029	29
Colorado	6,705	0.8970	6,014	30
Utah	7,451	0.8039	5,989	31
Missouri	6,411	0.9274	5,945	32
Pennsylvania	6,098	0.9710	5,922	33
Texas	6,076	0.9709	5,899	34
New Hampshire	6,054	0.9584	5,803	35
Alabama	6,524	0.8822	5,755	36
Idaho	6,267	0.8971	5,622	37
Mississippi	5,544	0.9703	5,379	38
New Mexico	5,177	1.0249	5,306	39
Indiana	5,817	0.9031	5,253	40
South Carolina	5,488	0.9446	5,184	41
South Dakota	4,973	1.0289	5,117	42
Kentucky	5,155	0.9813	5,058	43
Vermont	7,189	0.7019	5,046	44
Tennessee	5,583	0.9032	5,042	45
Arkansas	4,898	1.0242	5,017	46
Maine	4,646	1.0711	4,976	47
West Virginia	5,317	0.9202	4,893	48
Louisiana	4,676	0.9630	4,503	49
Georgia	3,944	0.9772	3,854	50
Weighted Average			7,083	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into state) + Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted enrollments per 100,000 by adjustment factor

EXHIBIT 3-22

UPPER DIVISION HEADCOUNT ENROLLMENTS PER 100,000 WORKING-AGE POPULATION BY STATE ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	ENROLLMENTS IN STATE INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED ENROLLMENTS OF STATE RESIDENTS b/	STATE RANKING
North Dakota	3,930	0.9376	3,685	1
Nebraska	3,618	1.0114	3,659	2
Montana	3,143	1.1570	3,637	3
Utah	4,506	0.8039	3,623	4
Iowa	3,405	0.9698	3,303	5
Wisconsin	3,350	0.9723	3,257	6
Massachusetts	3,657	0.8827	3,228	7
South Dakota	3,041	1.0289	3,129	8
New York	2,913	1.0379	3,023	9
Rhode Island	4,183	0.6963	2,913	10
Oklahoma	2,736	1.0498	2,872	11
Kansas	3,054	0.9344	2,853	12
Connecticut	2,347	1.1933	2,800	13
Minnesota	2,690	1.0354	2,785	14
Indiana	2,936	0.9031	2,652	15
Michigan	2,567	1.0098	2,592	16
New Jersey	1,820	1.4122	2,571	17
Ohio	2,497	1.0189	2,544	18
Alaska	1,245	2.0214	2,516	19
Delaware	2,899	0.8679	2,516	20
Louisiana	2,596	0.9630	2,500	21
Missouri	2,694	0.9274	2,498	22
Maine	2,321	1.0711	2,486	23
New Hampshire	2,581	0.9584	2,474	24
Colorado	2,737	0.8970	2,455	25
Pennsylvania	2,470	0.9710	2,399	26
Maryland	2,251	1.0523	2,369	27
Vermont	3,335	0.7019	2,341	28
Hawaii	2,189	1.0535	2,306	29
New Mexico	2,238	1.0249	2,294	30
Mississippi	2,354	0.9703	2,284	31
Illinois	2,199	1.0334	2,272	32
West Virginia	2,407	0.9202	2,215	33
Kentucky	2,213	0.9813	2,171	34
Oregon	2,274	0.9538	2,169	35
Arizona	2,369	0.9142	2,166	36
Arkansas	2,091	1.0242	2,142	37
Alabama	2,424	0.8822	2,138	38
Virginia	2,117	1.0077	2,134	39
Tennessee	2,285	0.9032	2,064	40
Wyoming	1,815	1.1200	2,033	41
Texas	2,058	0.9709	1,998	42
Idaho	2,216	0.8971	1,988	43
California	2,037	0.9664	1,969	44
North Carolina	2,131	0.8738	1,862	45
Washington	1,911	0.9737	1,861	46
South Carolina	1,897	0.9446	1,792	47
FLORIDA	**1,742**	**0.9970**	**1,737**	**48**
Georgia	1,761	0.9772	1,721	49
Nevada	1,511	1.1247	1,699	50
WEIGHTED AVERAGE			2,367	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into state) + Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted enrollments per 100 000 by adjustment factor

EXHIBIT 3-23

GRADUATE LEVEL AND POSTBACCALAUREATE HEADCOUNT ENROLLMENTS PER 100,000 WORKING AGE POPULATION BY STATE ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	ENROLLMENT IN STATE INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED ENROLLMENTS OF STATE RESIDENTS b/	STATE RANKING
Connecticut	2,162	1.1933	2,580	1
Massachusetts	2,632	0.8827	2,323	2
New York	2,036	1.0379	2,113	3
Illinois	1,625	1.0334	1,679	4
New Jersey	1184	1.4122	1,672	5
Kansas	1,742	0.9344	1,628	6
Nebraska	1,556	1.0114	1,574	7
Oklahoma	1,488	1.0498	1,562	8
New Mexico	1520	1.0249	1,558	9
Maryland	1,421	1.0523	1,495	10
Arizona	1,594	0.9142	1,457	11
Alaska	698	2.0214	1,411	12
Rhode Island	1,962	0.6963	1,366	13
Virginia	1,343	1.0077	1,353	14
Missouri	1,425	0.9274	1,322	15
Michigan	1,294	1.0098	1,307	16
Texas	1338	0.9709	1,299	17
Pennsylvania	1,333	0.9710	1,296	18
Iowa	1,335	0.9698	1,295	19
Wisconsin	1,327	0.9723	1,290	20
Ohio	1,259	1.1089	1,396	21
Colorado	1,397	0.8970	1,253	22
California	1292	0.9664	1,249	23
New Hampshire	1263	0.9584	1,210	24
Hawaii	1112	1.0535	1,171	25
Minnesota	1129	1.0354	1,169	26
South Dakota	1133	1.0289	1,166	27
Idaho	1255	0.8971	1,126	28
Indiana	1239	0.9031	1,119	29
North Dakota	1,160	0.9376	1,088	30
Utah	1,347	0.8039	1,083	31
Oregon	1,093	0.9538	1,043	32
West Virginia	1,119	0.9202	1,030	33
Montana	847	1.1570	980	34
Kentucky	997	0.9813	978	35
Louisiana	1,000	0.9630	963	36
FLORIDA	953	0.9970	950	37
South Carolina	984	0.9446	929	38
Vermont	1,322	0.7019	928	39
Georgia	937	0.9772	916	40
Delaware	1,031	0.8679	895	41
Tennessee	956	0.9032	863	42
North Carolina	946	0.8738	827	43
Alabama	906	0.8822	799	44
Washington	816	0.9737	795	45
Wyoming	699	1.1200	783	46
Arkansas	729	1.0242	747	47
Mississippi	750	0.9703	728	48
Nevada	584	1.1247	657	49
Maine	525	1.0711	562	50
WEIGHTED AVERAGE			1,331	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into state) + Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted enrollments per 100,000 by adjustment factor

EXHIBIT 3-24

PROFESSIONAL HEADCOUNT ENROLLMENTS PER 100,000 WORKING-AGE POPULATION BY STATE ADJUSTED TO REFLECT IN & OUT OF STATE MIGRATION DIFFERENCES (1986-87)

STATE	ENROLLMENTS IN STATE INSTITUTIONS	MIGRATION ADJUSTMENT FACTOR a/	ESTIMATED ENROLLMENT OF STATE RESIDENTS b/	STATE RANKING
Iowa	508	0.9698	492	1
Massachusetts	504	0.8827	445	2
Nebraska	405	1.0114	410	3
Missouri	388	0.9274	360	4
Illinois	345	1.0334	357	5
New York	339	1.0379	352	6
Minnesota	319	1.0354	331	7
Louisiana	312	0.9630	301	8
Oklahoma	279	1.0498	293	9
Ohio	281	1.0189	286	10
Connecticut	240	1.1933	286	11
Kentucky	283	0.9813	278	12
Pennsylvania	281	0.9710	273	13
Oregon	285	0.9538	272	14
New Jersey	185	1.4122	261	15
Montana	224	1.1570	259	16
Michigan	248	1.0098	250	17
Tennessee	265	0.9032	240	18
Georgia	242	0.9772	237	19
Texas	241	0.9709	234	20
California	236	0.9664	228	21
Virginia	223	1.0077	225	22
Indiana	233	0.9031	210	23
Kansas	218	0.9344	204	24
Maryland	182	1.0523	192	25
North Carolina	213	0.8738	186	26
Wisconsin	185	0.9723	180	27
Colorado	195	0.8970	175	28
South Dakota	159	1.0289	164	29
South Carolina	174	0.9446	164	30
Alabama	172	0.8822	152	31
Mississippi	156	0.9703	151	32
FLORIDA	150	0.9970	150	33
Washington	151	0.9737	147	34
Utah	180	0.8039	145	35
West Virginia	156	0.9202	144	36
Arkansas	139	1.0242	142	37
North Dakota	147	0.9376	138	38
New Hampshire	132	0.9584	126	39
Maine	109	1.0711	116	40
Hawaii	101	1.0535	107	41
Vermont	143	0.7019	100	42
New Mexico	95	1.0249	97	43
Arizona	101	0.9142	92	44
Wyoming	82	1.1200	92	45
Nevada	55	1.1247	62	46
Idaho	63	0.8971	56	47
Rhode Island	69	0.6963	48	48
Delaware	0	0.8679	0	49
Alaska	0	2.0214	0	50
WEIGHTED AVERAGE			246	

a/ Adjustment factor = [Total Enrollment - Total enrollment/New enrollment (migration of students into state) + Total enrollment/New enrollment (migration of students out of the state)]/Total Enrollment

b/ Adjusted by multiplying unadjusted enrollments per 100,000 by adjustment factor

When compared to the high economic growth and consistent economically strong states, Florida's higher education participation rates are particularly low, as shown in exhibit 3-25.

It is clear that at least within the next five years Florida will make no progress in catching up with the average higher education degree productivity of either the high economic growth or consistent economically strong states.

3.8.6 Enrollment Participation Rates Within Florida[9]

While Florida's overall higher education participation rate lags significantly behind the participation rates in other states, the participation rates in some Florida counties, based on the "rough" estimates in exhibit 3-26, compare quite favorably with those of the high performing states. Those counties are as follows:

Alachua	Highlands
Bay	Indian River
Brevard	Leon
Calhoun	Martin
Clay	Okaloosa
Columbia	Putnam
Duval	Santa Rosa
Hardee	Seminole

The higher education participation rates in many Florida counties, however, are significantly (40 percent or more) below those of the high performing states. whose counties with significantly low participation rates are:

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[9]Enrollment rates per 100,000 w.a.p. for Florida's counties were difficult to estimate because of data problems. Beyond the normal problems of correctly identifying students' home counties, the community colleges reported large numbers of "unknown" home counties and no information was available on the home county of private college students. Hence, the enrollment rates by county in exhibit 3-26 must be considered as rough estimates only based on limited information. The state needs to establish procedures for obtaining more accurate estimates.

EXHIBIT 3-25

COMPARISON OF HEADCOUNT ENROLLMENTS
PER 100,000 WORKING AGE POPULATION IN FLORIDA AND
SELECTED OTHER STATES, FALL 1986

TYPE OF ENROLLMENT	FLORIDA	AVERAGES	
		HIGH GROWTH a/b/	CONSISTENTLY STRONG c/
Headcount			
Lower Division	6,942	6,708	8,417
Upper Division	1,737	2,499	2,410
Graduate and Postbaccalaureate	950	1,691	1,681
Professional	150	265	286
TOTAL	9,779	11,163	12,794
TOTAL F.T.E	6,668	7,272	8,885

a/ High Growth states are those in which per capita income has increased greater than 20% since 1978 These states include Connecticut, Florida, Georgia, Maryland, Rhode Island, North Carolina, New Hampshire, Massachusetts, New Jersey, New York, Maine, Vermont, and Virginia.

b/ Florida enrollments excluded from averages

c/ Consistently economically strong states are those states whose per capita income has been above the national average since 1950 and include California, Maryland, New York, Delaware, Illinois, Michigan, Vermont, Massachusetts, New Jersey, and Connecticut.

Exhibit 3-26

Estimated Total Headcount Enrollments Of Resident Students Per 100,000 Working Age Population By Home County, Fall 1989

County	Lower Division Undergraduate	Upper Division Undergraduate	Graduate	Total
Alachua	4,547	2,131	2,474	9,152
Baker	4,582	541	467	5,591
Bay	8,229	1,302	855	10,386
Bradford	2,075	557	326	2,959
Brevard	10,534	1,918	718	13,169
Broward	4,089	1,402	682	6,173
Calhoun	7,527	1,234	737	9,498
Charlotte	2,427	1,043	371	3,841
Citrus	5,283	914	709	6,906
Clay	8,067	1,583	807	10,457
Collier	3,562	793	386	4,741
Columbia	8,658	1,182	516	10,356
Dade	5,221	1,630	816	7,667
DeSoto	6,798	436	379	7,613
Dixie	1,859	263	254	2,376
Duval	7,792	1,139	762	9,693
Escambia	6,294	1,589	941	8,824
Flagler	755	987	469	2,211
Franklin	2,165	538	426	3,129
Gadsden	2,226	910	739	3,875
Gilchrist	2,859	1,218	476	4,552
Glades	1,147	420	273	1,840
Gulf	3,142	897	593	4,631
Hamilton	4,786	502	326	5,614
Hardee	9,170	495	459	10,123
Hendry	1,719	478	296	2,494
Hernando	6,553	960	714	8,228
Highlands	11,564	704	489	12,757
Hillsborough	3,791	1,459	1,027	6,276
Holmes	4,536	935	382	5,853
Indian River	11,973	950	319	13,241
Jackson	7,494	1,104	795	9,394
Jefferson	2,458	1,052	786	4,297
Lafayette	2,197	758	417	3,371
Lake	4,490	788	404	5,683
Lee	4,440	1,041	476	5,956
Leon	4,336	2,553	1,996	8,886
Levy	2,431	787	405	3,623
Liberty	2,787	905	624	4,316
Madison	8,067	966	361	9,394
Manatee	4,199	1,329	747	6,275
Marion	6,188	858	528	7,574
Martin	11,054	1,094	419	12,567
Monroe	7,812	561	226	8,599

Exhibit 3-26

Estimated Total Headcount Enrollments Of Resident Students Per 100,000 Working Age Population By Home County, Fall 1989

County	Lower Division Undergraduate	Upper Division Undergraduate	Graduate	Total
Nassau	1,392	692	355	2,439
Okaloosa	6,788	1,621	1,420	9,829
Okeechobee	2,827	471	257	3,555
Orange	5,443	1,554	794	7,791
Osceola	1,650	852	327	2,829
Palm Beach	5,128	1,439	821	7,389
Pasco	5,363	1,077	627	7,067
Pinellas	4,868	1,645	894	7,406
Polk	3,420	759	483	4,662
Putnam	10,322	711	462	11,495
St. Johns	1,005	909	835	2,749
St. Lucie	9,181	647	293	10,121
Santa Rosa	7,294	1,923	1,055	10,272
Sarasota	4,064	1,663	908	6,635
Seminole	7,855	1,978	798	10,631
Sumter	4,182	377	335	4,894
Suwannee	7,354	809	718	8,881
Taylor	3,742	883	376	5,001
Union	1,358	260	192	1,810
Volusia	6,374	1,062	512	7,947
Wakulla	2,241	894	587	3,721
Walton	6,924	1,129	579	8,633
Washington	2,525	1,269	829	4,624
State Averages	5,468	1,402	805	7,675

Bradford	Levy
Charlotte	Liberty
Collier	Nassau
Dixie	Okeechobee
Flagler	Osceola
Franklin	Polk
Gadsden	St. Johns
Gilchrist	Sumter
Glades	Taylor
Gulf	Union
Hendry	Wakulla
Jefferson	Washington
Lafayette	

3.9 Produce or Import

In spite of Florida's low rate of higher education degrees and participation rates, the state's economy has performed well over the last several decades. Thus, a legitimate question becomes "if higher education is so important to economic growth, why has Florida's economy performed so well when the state's higher education productivity has been so low?" The answer, of course, is that Florida's businesses have consistently recruited out of state for most of their highly professional and technical employees. Almost all major businesses included in a 1989 business survey conducted by MGT for Project Cornerstone (Florida Chamber of Commerce) reported that:

- they were unable to find enough qualified professional and technical employees in state to fill their vacancies; and
- they recruited heavily out of state.

The current pattern of importing a large proportion of the state's highly educated work force has the advantage that tax payers in other states are paying a large part of the costs of educating Florida's workers. The pattern also has several disadvantagesincluding:

- A larger proportion of Florida's own citizens are, because they are not obtaining the required higher education, being relegated to the lower paying jobs, while newcomers get the higher paying jobs.
- The state's dependence on inmigration to fill a large proportion of the job vacancies is contributing to the state's massive population growth which, in turn:
  - creates overcrowding

- places pressures on the state's physical infrastructure (e.g., roads, highways, utilities, schools, law enforcement, etc.)

- places pressures on the state's fragile natural environment (e.g., water, beaches, air, wildlife, etc.)

- By not educating its citizens at the higher rates of competitor states, Florida is guaranteeing that a larger percentage of its work force will not be qualified to fill the higher paying jobs. In other words, Florida is creating a larger class of citizens who are not prepared to make a major contribution to the state's future growth. This "underclass" may later pose major social instability problems for the state.

Florida has, by default, adopted a policy that it will depend upon inmigration and tax payers in other states to supply a significant proportion of its college graduate citizens. The state has also decided, by default, that it will continue to build a larger and larger group of workers without the required skills to be highly competitive in the new world economy. In establishing criteria for new campuses and institutions, PEPC needs to decide whether to continue these historical, by-default policies.

3.10 Summary Comparison

There appears to be little doubt that the high economic growth states and the consistent economically strong states are preparing their work forces to be major players in the future global economy and that Florida is falling far short in the preparation of its work force.

In spite of the fact that the fast growth and consistent economically strong states are producing significantly more higher education degrees per 100,000 w.a.p. than Florida, it should be noted that these other states are not just standing still. Even as officials in Florida are considering actions to enhance Florida's higher education services, other states and nations, both those economically above and below Florida, are continuing to enhance their higher education systems as indicated earlier in exhibit 3-9.

3.11 Recommended State Degree Productivity Goals

The establishment of a set of state higher education goals depends heavily upon the type of economic, social, health and cultural lifestyle that Florida wants to secure for its citizens in the 21st century. Our recommended goals are based upon the following assumptions and reasons:

ASSUMPTION: Florida wants to build and retain one of the nation's most successful economies so that its citizens will be major participants in the evolving world economy. Simultaneously, the state wants to protect its environment and maintain a quality of life environment for its citizens.

REASON: Higher education is a critical determinant of the ability of Florida's individual citizens to obtain

and hold well-paying jobs and careers and to lead a healthy, happy life.

REASON: A highly education work force is essential to Florida's ability to successfully compete in the future world economy and to maintain a quality life environment for its citizens.

Based upon the above, we recommend that Florida establish the following annual higher education degree goals:

Ultimate Goal: By the year 2020, Florida will be annually granting degrees per 100,000 working age population (w.a.p.) at the bachelor's, master's, first professional and doctoral levels that equal or exceed the average of the 10 states with the most successful economies defined as those states whose per capita income has been consistently above the national average since 1950.

Based on currently available data, Florida's goal for the year 2020 is to be granting at least the following number of degrees per 100,000 w.a.p. per year:

Bachelor's	948
Master's	321
First Professional	74
Doctorate	36

Intermediate Goals: To accomplish the above goal, Florida will achieve the following percentages of the ultimate goals by the targeted years per w.a.p.:

TARGET YEAR	PERCENT OF ULTIMATE GOAL			
	BACHELOR'S	MASTER'S	DOCTORAL	1ST PROF
2020	100.0%	100.0%	100.0%	100.0%
2015	95.0%	93.5%	94.5%	93.5%
2010	90.0%	87.0%	89.0%	87.0%
2005	85.0%	80.5%	83.5%	80.5%
2000	80.0%	74.0%	78.0%	74.0%
1995	75.0%	67.5%	72.5%	67.5%
1990 (EST)	70.0%	61.0%	67.0%	61.0%

3.12 State Participation Rate (Enrollment) Goals

To achieve its higher education degree productivity goals, Florida will have to commensurately increase its overall higher education participation rates,

measured in enrollments per 100,000 working age population. Accordingly, we recommend the following higher education participation rate goals:

Ultimate Goal: By the year 2015, Florida will annually enroll students at the lower, upper, first professional and graduate levels on a per 100,000 w.a.p. basis that equals the average of the 10 states (excluding Alaska and Nevada) with consistently strong economies.

Based on currently available data, Florida's goal for the year 2015 is to be enrolling the following headcount enrollments per 100,000 w.a.p. per year:

Lower	8,417
Upper	2,410
Professional	286
Graduate	1,681

Intermediate Goal: To accomplish the above goal, Florida will achieve the following percentages of its ultimate participation rate goals by the targeted years:

TARGET YEAR	PERCENT OF ULTIMATE GOAL			
	LOWER	UPPER	1ST PROF.	GRADUATE
2020	100.0%	100.0%	100.0%	100.0%
2015	100.0%	100.0%	100.0%	100.0%
2010	96.4%	92.4%	90.4%	91.8%
2005	92.8%	84.8%	80.8%	83.6%
2000	89.2%	77.2%	71.2%	75.4%
1995	85.6%	69.6%	61.6%	67.2%
1990 (EST)	82.0%	62.0%	52.0%	59.0%

As shown in exhibit 3-27, achievement of the phased-in goals for college participation is projected to result in 111,899 additional students by the year 2000 and 234,277 additional students by 2020.

3.13 Enrollment Goals for Florida Independent Institutions

Because of the major contributions that can be made by Florida's independent institutions of higher education, and because of the dollar savings to the state's tax payers, we recommend that the state adopt the following goal:

Florida's independent institutions will continue to enroll the current number of higher education students from Florida.

EXHIBIT 3-27

ANALYSIS OF GROWTH IN FTE UNDER DIFFERING ASSUMPTIONS ABOUT PARTICIPATION RATES FOR FLORIDA ADULTS AGED 18-44

PROJECTED POPULATION

Age Category	1990	1995	2000	2005	2010	2015	2020	Growth 1990-2000	Percent Growth	Growth 1990-2020	Percent Growth
18-44	5,108,256	5,421,026	5,526,555	5,626,755	5,675,614	5,665,156	5,638,835	418,299	8%	530,579	10%
Total	13,152,700	14,723,700	15,988,000	17,071,100	18,089,200	19,016,272	19,991,400	2,835,300	22%	6,838,700	52%

PROJECTED FTE ENROLLMENT

Enrollment Level		1990	1995	2000	2005	2010	2015	2020	10-Year Growth	Percent Growth	30-Year Growth	Percent Growth
Lower	Proposed Goal	8.417%	8.417%	8.417%	8.417%	8.417%	8.417%	8.417%				
352,569	@ 100%	429,962	456,288	465,170	473,604	477,719	476,836	474,621	112,601	32%	122,052	35%
	Phased Target	82.0%	85.6%	89.2%	92.8%	96.4%	100.0%	100.0%				
	Phased Goal	6.902%	7.205%	7.508%	7.811%	8.114%	8.417%	8.417%				
	@ Phase-In	352,569	390,582	414,932	439,504	460,519	476,836	474,621	62,363	18%	122,052	35%
	Current Rate	6.902%	6.902%	6.902%	6.902%	6.902%	6.902%	6.902%				
	@ Current	352,569	374,156	381,440	388,355	391,727	391,006	389,189	28,871	8%	36,620	10%
Upper	Proposed Goal	2.410%	2.410%	2.410%	2.410%	2.410%	2.410%	2.410%				
76,328	@ 100%	123,109	130,647	133,190	135,605	136,782	136,530	135,896	58,862	74%	59,568	78%
	Phased Target	62.0%	69.6%	77.2%	84.8%	92.4%	100.0%	100.0%				
	Phased Goal	1.494%	1.677%	1.861%	2.044%	2.227%	2.410%	2.410%				
	@ Phase-In	76,328	90,930	102,823	114,993	126,387	136,530	135,896	26,495	35%	59,568	78%
	Current Rate	1.494%	1.494%	1.494%	1.494%	1.494%	1.494%	1.494%				
	@ Current	76,328	81,001	82,578	84,075	84,805	84,649	84,255	6,250	8%	7,928	10%
1st Prof	Proposed Goal	0.286%	0.286%	0.286%	0.286%	0.286%	0.286%	0.286%				
7,597	@ 100%	14,610	15,504	15,806	16,093	16,232	16,202	16,127	8,209	108%	8,530	112%
	Phased Target	52.0%	61.6%	71.2%	80.8%	90.4%	100.0%	100.0%				
	Phased Goal	0.149%	0.176%	0.204%	0.231%	0.259%	0.288%	0.286%				
	@ Phase-In	7,597	9,551	11,254	13,003	14,674	16,202	16,127	3,657	48%	8,530	112%
	Current Rate	0.149%	0.149%	0.149%	0.149%	0.149%	0.149%	0.149%				
	@ Current	7,597	8,062	8,219	8,368	8,441	8,425	8,386	622	8%	789	10%
Graduate	Proposed Goal	1.681%	1.681%	1.681%	1.681%	1.681%	1.681%	1.681%				
50,663	@ 100%	85,870	91,127	92,901	94,586	95,407	95,231	94,789	42,238	83%	44,126	87%
	Phased Target	59.0%	67.2%	75.4%	83.6%	91.8%	100.0%	100.0%				
	Phased Goal	0.992%	1.130%	1.267%	1.405%	1.543%	1.681%	1.681%				
	@ Phase-In	50,663	61,238	70,048	79,074	87,584	95,231	94,789	19,384	38%	44,126	87%
	Current Rate	0.992%	0.992%	0.992%	0.992%	0.992%	0.992%	0.992%				
	@ Current	50,663	53,765	54,812	55,806	56,290	56,166	55,925	4,149	8%	5,262	10%
Total	Proposed Goal	12.794%	12.794%	12.794%	12.794%	12.794%	12.794%	12.794%				
487,156	@ 100%	653,550	693,566	707,067	719,887	726,138	724,800	721,433	210,911	45%	234,277	48%
	Phased Target	9.537%	10.188%	10.840%	11.491%	12.143%	12.794%	12.794%				
	@ Phase-In	487,156	552,301	599,056	648,574	689,183	724,800	721,433	111,899	23%	234,278	48%
	Current Rate	9.537%	9.537%	9.537%	9.537%	9.537%	9.537%	9.537%				
	@ Current	487,156	516,984	527,048	536,804	541,263	540,266	537,756	39,892	8%	50,599	10%

4.0 NEW INSTITUTION VERSUS EXPANDING EXISTING INSTITUTIONS

4.0 NEW INSTITUTION VERSUS EXPANDING EXISTING INSTITUTIONS

Any time a new institution is proposed, the question must be asked: "Why not invest the additional money in existing institutions?" At least three issues should be addressed in responding to this important question.

1. Can the targeted student populations be adequately served by existing institutions?

2. Do existing institutions have excess physical capacity or will they have to add buildings?

3. Will the costs per student be less at existing institutions?

4. Is there a maximum institutional size beyond which program quality suffers or costs per student start to increase?

4.1 Can targeted student populations be adequately served by existing institutions?

This questions must be answered separately for each geographical area of the state and, hence, must be part of the feasibility study completed after an area meets the initial screening requirements.

The basic issue in serving target student populations is the percentage of that population who are placebound because of personal, economic, family and/or job factors. Mobile students can be served by almost any institution. Placebound students, however, have to be served in their home areas and they must be served by programs which meet their needs (e.g., not random selections of courses that do not lead to a degree).

The feasibility study should identify the needs of placebound students and determine if those needs can be adequately met by existing institutions.

4.2 Do existing institutions have excess physical capacity or will they have to add buildings?

Answers to the physical capacity question will vary over time, depending on enrollment trends and the recent addition or deletion of buildings at existing institutions. However, at any point in time, the physical capacity of existing institutions can be easily measured by applying Florida's fixed capital outlay formula. That formula, which is designed to measure the total amount of space needed to serve a specified enrollment level and mix, can easily be worked backwards to measure the existing student capacity of each institution.

The analysis of existing excess capacity should be conducted as part of the feasibility study after a geographical area has met initial screening requirements.

4.3 Will the costs per student be less at existing institutions?

The third issue can be generically addressed by examining the cost structures of colleges and universities. To do so, we analyzed relationships between enrollment levels and the indirect costs of 435 U.S. community colleges

and 250 U.S. state universities (not graduate/research universities) in 23 states.

We chose to analyze only indirect costs as a percentage of total operating costs for the following reasons:

1. Direct costs per FTE student tend to vary more by type of program offered (e.g., freshmen English vs. sheet metal working) than by institutional enrollment size. Hence, the direct costs per FTE student should be about the same for similar programs among all institutions except for cost of living cost differentials among college locations.

2. Indirect support programs tend to be quite similar among all institutions and vary more by institutional size. Indirect programs include institutional support, student services, academic support, and physical plant operations.

3. The percentage of total Education and General costs spent on indirect programs generally decline as an institution's enrollments increase to a level at which the percentage tends to level out.

4. To eliminate the impact of cost differences among regions, we have expressed indirect costs as a percent of total operating costs.

Community Colleges. For community colleges, as shown in exhibit 4-1, we found that there is a sharp decline in the percent of total E&G dollars spent on indirect costs as a college's enrollment grows from 0 to about 4,500 students. After 4,500 students, the percentage spent on indirect costs remains relatively level at slightly over 46 percent. Thus, once a community college reaches an enrollment of about 4,500 FTE students, there is no indirect cost advantage of adding more students to an existing college, if those students can be placed in a new institution that can also achieve a 4,500 FTE student enrollment level.

Regional Universities. Regional universities are defined as institutions that primarily offer bachelor's and master's programs and do not grant more than 30 doctoral degrees per year. For regional universities, we found that the percent of total E&G dollars spent on indirect costs declines significantly as the institution's enrollments increase to about 7,500 FTE students (exhibit 4.2). A slight decline continues for enrollment increases through the range of our data. Thus, there are only small indirect cost advantages of building regional university enrollments above 7,500 FTE students, as long as the students can be placed in new institutions that can achieve 7,500 FTE student enrollments.

4.4 Is There an Optimal University Size?

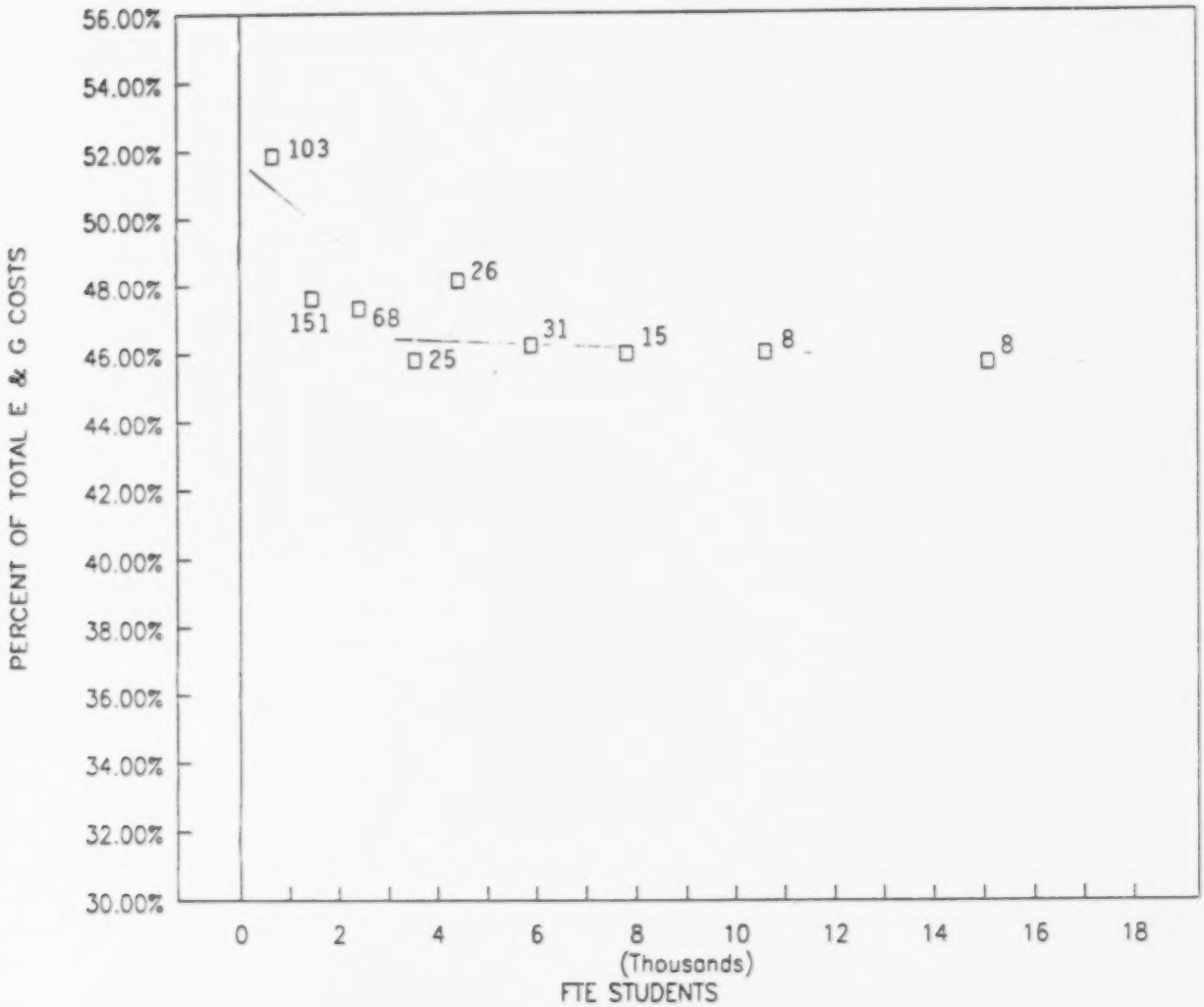
An important question related to the establishment of new institutions, versus adding students to existing institutions, concerns the impact of size on the costs and quality of education. In particular, the question is:

Is there a maximum institutional size beyond which additional students will result in added costs per student and/or decreased program quality?

Diseconomies of Scale. While economic theory argues that diseconomies of scale most certainly do exist, no recognized empirical studies have proven that

EXHIBIT 4-1

COMMUNITY COLLEGE
INDIRECT COST AS A PERCENT OF TOTAL EDUCATION AND GENERAL COSTS (E & G) a/ b/ c/



a/ Based on analysis of 1986-87 IPEDS financial data for 435 community colleges in 23 states.

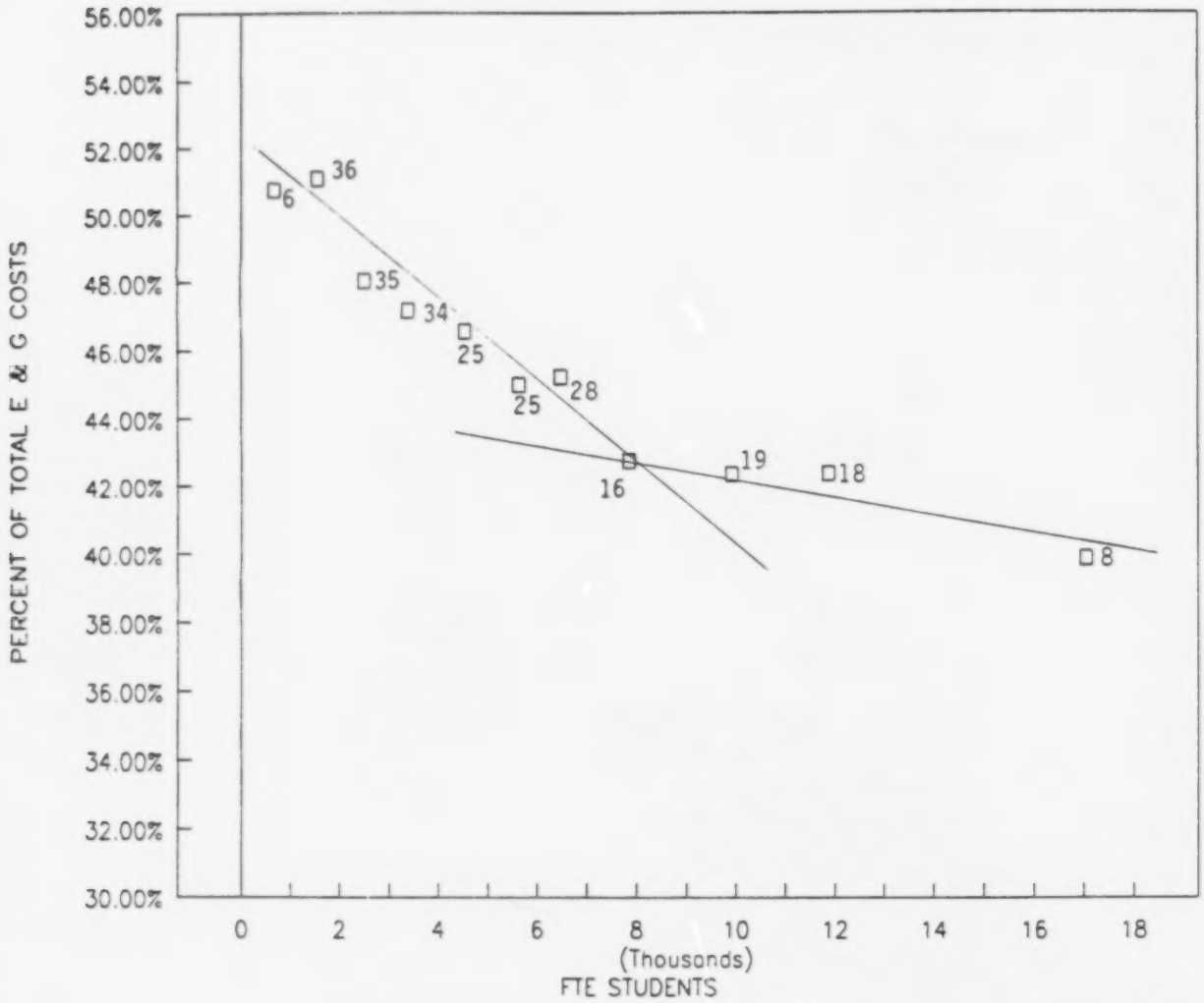
b/ Indirect costs defined as costs for institutional support, academic support, student services and physical plant operations.

c/ Each block represents the average cost and average enrollment of all colleges with an enrollment falling within the indicated enrollment range, e.g., <1,000, 1,000-1,999, etc. The number beside each block indicates the number of colleges in the enrollment range.

Note: Graph is based on national definitions of FTE students. Florida's definitions yield 75% as many FTE as the national definitions.

EXHIBIT 4-2

REGIONAL UNIVERSITY INDIRECT COST AS A PERCENT OF TOTAL EDUCATION AND GENERAL COSTS a/ b/ c/



a/ Based on analysis of 1986-87 IPEDS financial data for 250 universities in 23 states.

b/ Indirect costs defined as costs for institutional support, academic support, student services and physical plant operations.

c/ Each block represents the average cost and average enrollment of all universities with an enrollment falling within the indicated enrollment range, e.g., <1,000, 1,000-1,999, etc. The number beside each block indicates the number of universities in the enrollment range.

Note: Graph is based on national definitions of FTE students. Florida's definitions yield 75% as many FTE as the national definitions.

any college or university has actually experienced increased average costs per student because of larger enrollments. Hoenack and Collins (1990), in a detailed literature review published in The Economics of American Universities, reported that none of the published studies had found diseconomies of scale. All had found economies of scale as enrollments grew from small to large, and some had found that beyond a certain enrollment level average costs per student tended to "level out." But none had found average costs actually increased beyond a certain enrollment level.

Deterioration in Program Quality. Many anecdotal cases of large classes, lack of access to professors and counselors, lack of a sense of belonging, etc., have been reported as examples of reduced quality resulting from large institutional enrollments. Beyond the anecdotal examples, however, there is little empirical evidence that size alone reduces program quality. Students, faculty and institutions, themselves, have responded to large sizes by creating "communities," often at the departmental or college level, within the institutions. The "communities" tend to take on the caring characteristics of a small institution where program quality and student welfare are protected at the "community" level. Thus, there is no overwhelming evidence that program quality is either greater or less at a large institution.

4.5 Recommendations

Based upon the above analyses, we recommend that the following criteria be established:

1. A new community college must have the potential of achieving an FTE enrollment of 2,000 FTE students (1,500 FTE students under Florida's definition) within five years after its opening date, and 4,500 (3,375 FTE students under Florida's definition) within 10 years.

2. A new university must have the potential of achieving an FTE enrollment of 3,500 FTE students (2,625 FTE students under Florida's definition) within five years after its opening date, and 7,500 (5,625 FTE students under Florida's definition) within 10 years.

5.0 OVERVIEW OF THREE-PHASE INSTITUTIONAL PLANNING MODEL

5.0 OVERVIEW OF THREE-PHASE INSTITUTIONAL PLANNING MODEL

As Florida prepares to develop new institutions of higher education to respond to the needs of its citizens, the state needs a formal process for state-level boards to deal with community inquiries and channel energies in the most productive manner. This section describes a three-phase institutional planning model with the following characteristics:

- separate phases are provided for screening of initial requests, analyzing the feasibility of successful operation, and planning for opening of a new institution;
- specific quantitative criteria are described that community groups and others can consider in assessing the merits of their proposal before significant time and expense are incurred;
- procedures are outlined that enable all parties to understand the various roles and responsibilities that each will play in reaching a decision to open a new college or university.

Exhibit 5-1 illustrates the flow of activities in the three major phases of the proposed institutional planning model.

Although the proposed model and accompanying criteria are designed specifically to plan for new institutions of higher education, the overall framework provides a basis for developing plans for other delivery systems such as off-campus sites, centers and branch campuses.

Phase 1: Threshold Analysis

Phase 1 is intended to identify "probable need" for a new institution through performing a threshold analysis. Phase 1 procedures serve to screen preliminary expressions of interest for starting a new college or university before significant amounts of community time and energy are invested.

The threshold analysis in phase 1 relies heavily on statistical analyses of demographic and educational performance data to assess the potential need for a new institution. For instance, a community with lower than average college participation rates might be a strong candidate for a new institution. On the other hand, a community without an adequate population base might be judged as unlikely to generate sufficient enrollments for a new institution to operate economically.

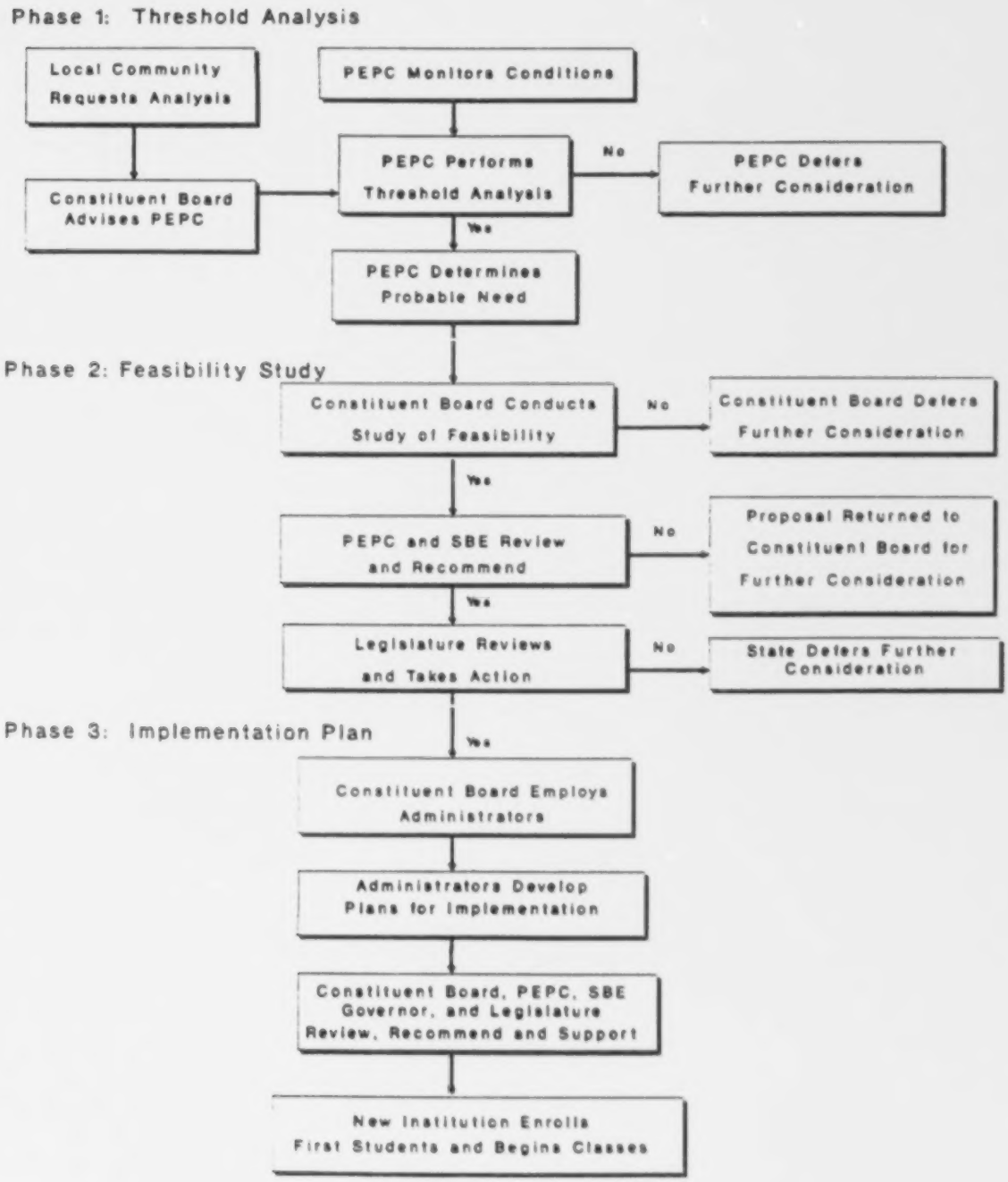
Positive findings from the threshold analysis are not to be interpreted as pre-approval for any subsequent proposal for a new institution. Instead, a finding of "probable need" indicates that conditions are sufficiently promising to merit investment by the community and appropriate state-level agencies in a more detailed feasibility analysis.

Phase 2: Feasibility Analysis

Phase 2 procedures outline the essential ingredients of an institutional feasibility study. Such a study will include more specific projections of potential demand in the community for a new institution both in terms of the probable numbers of students and in the types and levels of offerings they seek.

EXHIBIT 5-1

OVERVIEW OF THREE-PHASE INSTITUTIONAL PLANNING MODEL



A key part of the feasibility analysis will be the consideration of likely impact on existing institutions that serve the area. Also, the feasibility analysis will need to demonstrate that the proposed institution will comply with state policies for higher education.

The outcome of a successful feasibility analysis will be the passage of enabling legislation for the creation of a new college or university.

Phase 3: Implementation Planning

Once the Legislature creates a new institution, several years of planning and development typically will be required before the initial class is enrolled. The implementation planning procedures described as part of phase 3 suggest the types of issues that are likely to be encountered during the final planning phase for the new institution.

6.0 RESPONSIBILITIES AND PROCEDURES

6.0 RESPONSIBILITIES AND PROCEDURES

During the three-phased institutional planning process, a number of different individuals, community groups, and state-level boards and officials are likely to be involved. This section describes the roles that each participant will play during each of the three phases and outlines the procedures to be followed.

6.1 Threshold Analysis Roles and Activities

PEPC. The Postsecondary Education Planning Commission (PEPC) should have lead responsibility for the phase 1: threshold analysis activities. PEPC's responsibilities are two-fold:

- to establish state performance goals for postsecondary education on a continuing, long-term basis;
- to review specific opportunities for the creation of a new college or university and to determine whether probable need exists.

These two responsibilities are interrelated since each opportunity will be evaluated primarily on how it might help the state to achieve the performance goals that PEPC has established.

PEPC generally should carry out its phase 1 responsibilities as part of the Commission's Master Plan update activities every five years. The Master Plan should include an assessment of how Florida is performing in comparison to other states on such educational performance measures as:

- the number of degrees awarded per capita by degree level and program area,
- the participation levels per capita in postsecondary education by student level.

From this analysis, PEPC can propose goals for the state to pursue over the next five year cycle or longer period.

In addition to analyzing overall state performance on such educational performance measures, PEPC also should assess the performance of each of Florida's 67 counties. PEPC's assessment of community performance should be based on quantitative criteria that are derived from desired levels on the educational performance measures and other factors. A particular concern in this phase of the analysis will be to determine whether all regions of the state are contributing to the attainment of the statewide goal. Regions that are not performing as well as others will be analyzed to determine whether the state is providing appropriate types and levels of access to postsecondary programs.

The existence of poor performance levels in postsecondary education for a community, of course, is not by itself a sufficient justification to create a new college or university. Therefore, PEPC should be responsible for developing a comprehensive set of criteria and revising the criteria, as necessary, as part of the Master Plan update activity.

Through these interrelated Master Plan activities, PEPC may identify counties where there is a probable need to establish a new college or university. (Communities also may initiate consideration through another procedure described below.) When PEPC finds that probable need exists, it should invite the appropriate constituent board to undertake a feasibility study (phase 2 consideration).

Local Community Groups. The role for PEPC in identifying probable need in a community as part of the Master Plan process does not preclude a community from seeking special consideration. Local groups may monitor how their communities are rated by the criteria and, when they believe that conditions have changed sufficiently since the most recent assessment, seek a special threshold analysis. Also, local groups may seek waiver from the application of one or more of the criteria whenever they believe unique circumstances dictate special consideration. The interest of local groups should be expressed through the appropriate constituent board for the type of institution they seek.

Constituent Boards. As used in the institutional planning process, the term "constituent board" refers to either the Florida Board of Regents, in the case of state universities, or the State Board of Community Colleges when the reference is to two-year colleges.

The constituent boards have several important roles to play in phase 1. As the boards develop their five-year master plans, the need for a new institution(s) should be recognized. Further, as noted above, they should receive requests from local community groups and forward, as appropriate, recommendations to PEPC. The constituent boards also should consult with and advise PEPC on establishing phase 1 criteria and conducting threshold analyses.

The typical flow of events that will take place during the phase 1 threshold analysis are depicted in exhibit 6-1.

6.2 Feasibility Analyses Roles and Activities

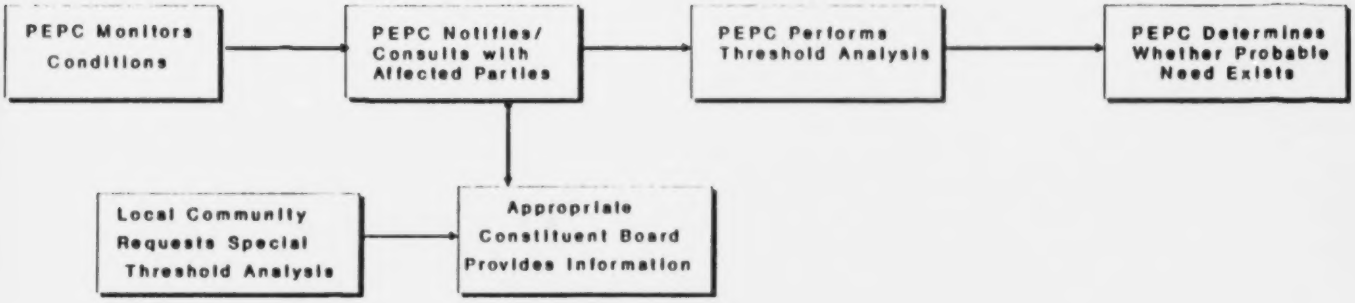
Constituent Boards. The Board of Regents or, as appropriate, the State Board of Community Colleges should play the lead role in the phase 2 feasibility study. The master plan of each constituent board should include the specific planning activities which comprise the feasibility study. After receiving an invitation from PEPC to conduct a study of the feasibility of creating a new institution in a designated community, the constituent board should undertake a series of planning activities that include:

- an educational needs assessment to identify the types of programs sought by potential students and the delivery models that they desire
- detailed enrollment projections that estimate the potential number of students to be served over the next decade
- a preliminary facilities plan that identifies the general types and amounts of space that will be required to successfully deliver the needed programs
- a budget plan that addresses both the ongoing operational requirements and the capital investment that will be necessary.

EXHIBIT 6-1

FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

Phase 1: Threshold Analysis


PEPC Monitors Conditions
PEPC Notifies/ Consults with Affected Parties
PEPC Performs Threshold Analysis
PEPC Determines Whether Probable Need Exists
Local Community Requests Special Threshold Analysis
Appropriate Constituent Board Provides Information

In many cases, an institution under the authority of the constituent board already will be providing postsecondary educational services in the community through a site, center or campus. When this situation exists, the constituent board will want to conduct special analyses of their recent experiences in the community and the impact that a new institution might have on the current service provider.

In addition to performing the several technical analyses that comprise a feasibility study, the constituent board also should consult with a number of affected parties during phase 2. These parties should include:

- representatives from the various municipal and county governments in the overall region that has been designated by PEPC;
- officials of independent colleges and universities that provide significant levels of service to the region;
- representatives from the other constituent board when that board has a campus or center in the region.

The purpose of such consultation is to determine the impact, if any, that the proposed institution might have on existing operations or on the plans of the affected parties.

After taking each of the above factors into account, the constituent board should develop and forward to PEPC a recommendation on whether and how to proceed with the development of a new institution.

Local Community Officials. As noted above, leaders and officials of the designated community are expected to play a major role in advising the constituent board during the feasibility study. These officials might assist in conducting the educational needs assessment and in providing demographic forecasts for the area that could be used in the enrollment projections. In some instances, community leaders might be called upon to advise on specific areas or sites within the overall community that would provide the best location for a new institution.

Local Education Officials. In many instances, the designated community already will be the site of a postsecondary education institution. Regardless of whether the existing institution is a public or independent agency, or both, its leaders should advise the constituent board of their own experiences in, and plans for, serving the community. To the extent possible, the constituent board will want to avoid duplication of services to the community. In some cases, an existing institution may want to offer access to its own facilities and resources to the potential new college or university.

Postsecondary Education Planning Commission. The recommended role of the PEPC is much more limited in phase 2 than in phase 1. In addition to recommending a set of minimum guidelines for feasibility studies in the Commission's Master Plan, PEPC may identify situation-specific concerns to be addressed in the feasibility study.

Once a constituent board completes a feasibility study, PEPC should review the results and recommend action to the State Board of Education. PEPC's review

of the feasibility study should focus on compliance with the guidelines and the policies and goals contained in the Commission's Master Plan, as well as those inherent in the master plans of the community college and state university systems.

State Board of Education. Upon favorable recommendation by PEPC, the State Board of Education will consider a proposal to create a new college or university. In certain cases, the State Board may choose to consider, upon appeal, a special request from a constituent board or local community to review a proposal that was not endorsed by PEPC. In either situation, the State Board will receive the recommendations of PEPC and the constituent board along with any other information that it considers pertinent to the issue. After consideration of all the facts, the State Board will develop its recommendation to the Legislature.

Florida Legislature. Upon recommendation of the State Board of Education, the Legislature will consider the creation of a new college or university. The Legislature will hold committee hearings and conduct other investigations that it deems to be necessary in the situation. Once it determines that a sufficient need exists and that a new college or university is likely to be successful, it will enact the appropriate legislation to create the new institution.

The probable flow of events during the feasibility study phase is shown in exhibit 6-2. The typical feasibility study may take up to one year to complete, but the schedule is likely to be adjusted to meet the demands of the legislative cycle.

6.3 Implementation Planning Roles and Activities

Board of Regents. Once legislative approval has been granted for a new state university, the Board of Regents will appoint one or more top-level administrators to begin detailed planning for the new institution. Depending on the circumstances, the Regents may reassign current SUS employees already serving in the community or recruit from a national pool of candidates. The Regents will advise the new administrative team on the parameters within which the institutional development plan should take place.

Later in the implementation planning phase, the Regents shall receive and consider recommendations from the new university's administrators regarding programs to approve, budgets to request, buildings to construct and other staff to be employed. The Regents will closely monitor the planning of the new university to ensure that plans are consistent with the intended mission of the institution and with any specific directives that were issued as part of the campus approval process.

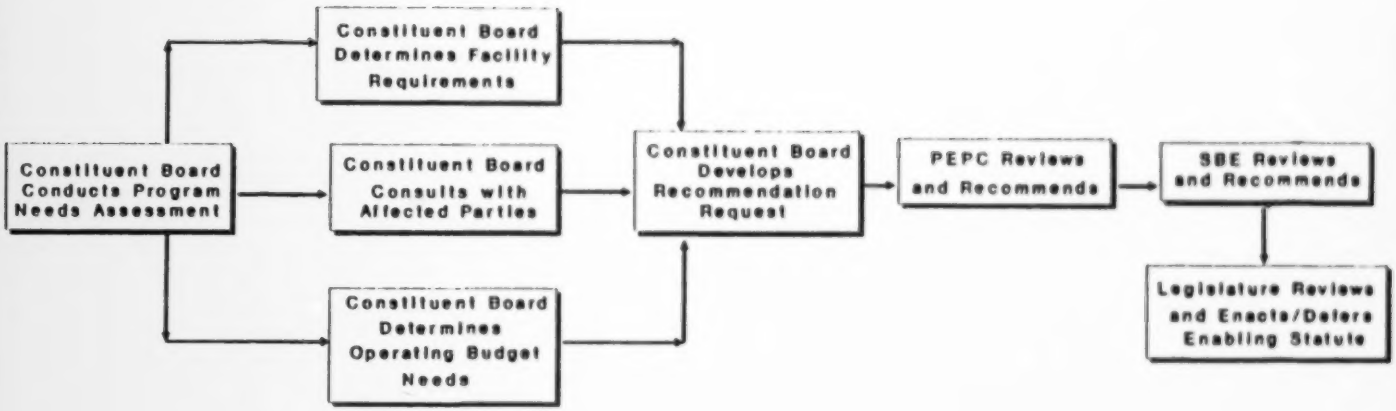
State Board of Community Colleges. When the Legislature approves the creation of a new community college, the State Board of Community Colleges will work with the board of trustees and top administrators of the college that already serves the community to develop plans for a smooth transition. In this situation, the State Board of Community Colleges will oversee the transfer of property, as appropriate, and will provide orientation training and assistance to the new board of trustees that will be appointed by the Governor.

Institutional Administrators. The administrative team of the new college or university will have the lead role during the implementation planning phase. They will be responsible for developing detailed program plans based on the

EXHIBIT 6-2

FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

Phase 2: Feasibility Study


Constituent Board Determines Facility Requirements
Constituent Board Conducts Program Needs Assessment
Constituent Board Consults with Affected Parties
Constituent Board Develops Recommendation Request
PEPC Reviews and Recommends
SBE Reviews and Recommends
Legislature Reviews and Enacts/Defers Enabling Statute
Constituent Board Determines Operating Budget Needs

results of the needs assessment conducted during the feasibility study. In turn, the program plan will form the basis for preparing more detailed facility master plans and budget plans than were developed during the previous phase. Also, planning during this period will lead to a detailed staffing plan for both faculty and support positions. These implementation plans will describe, on a year-by-year schedule, the events that will need to occur to make the new institution fully operational.

In addition to planning activities, the new administrative team will devote a considerable portion of time on community relations. They will strive to keep the neighboring community fully informed about their progress toward opening the new institution and will continue to build support from the local coalitions that were instrumental in winning state support for creating the new college or university.

Postsecondary Education Planning Commission. As compared to the two previous phases, PEPC's role in implementation planning is quite limited. Unless intersector disputes arise that require PEPC involvement, the Commission's activities will focus on review of the initial budget proposals. As with its other budget review functions, PEPC will seek to determine that the spending plan is consistent with prior policy direction established by the state. PEPC will forward its budget recommendations to the State Board of Education.

State Board of Education. The State Board's role in phase 3 will be similarly reduced. The State Board will review the budget proposal for the new college or university as part of its normal process along with budgets from existing institutions. The Board will forward its own recommendation to the Governor and Legislature.

Governor. In addition to his service on the State Board of Education, the Governor will be involved in developing budget recommendations to the Legislature. He will be called upon to submit budgets for both operating and capital needs for the new institution. Also, as noted above, the Governor will appoint members of the board of trustees for any newly created community college.

Florida Legislature. The role of the Legislature in the final planning phase also will be more limited than in the prior phase. The Legislature's involvement is also expected to focus primarily on budget issues.

Exhibits 6-3 and 6-4 depict the flow of major activities and decision points during the implementation planning phase for universities and community colleges.

Exhibits 6-5 and 6-6, respectively, show in matrix format the major functions to be performed by each of the various participants who will be involved in planning a new state university or a new community college.

EXHIBIT 6-3
FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

Phase 3: Implementation Plan for Universities

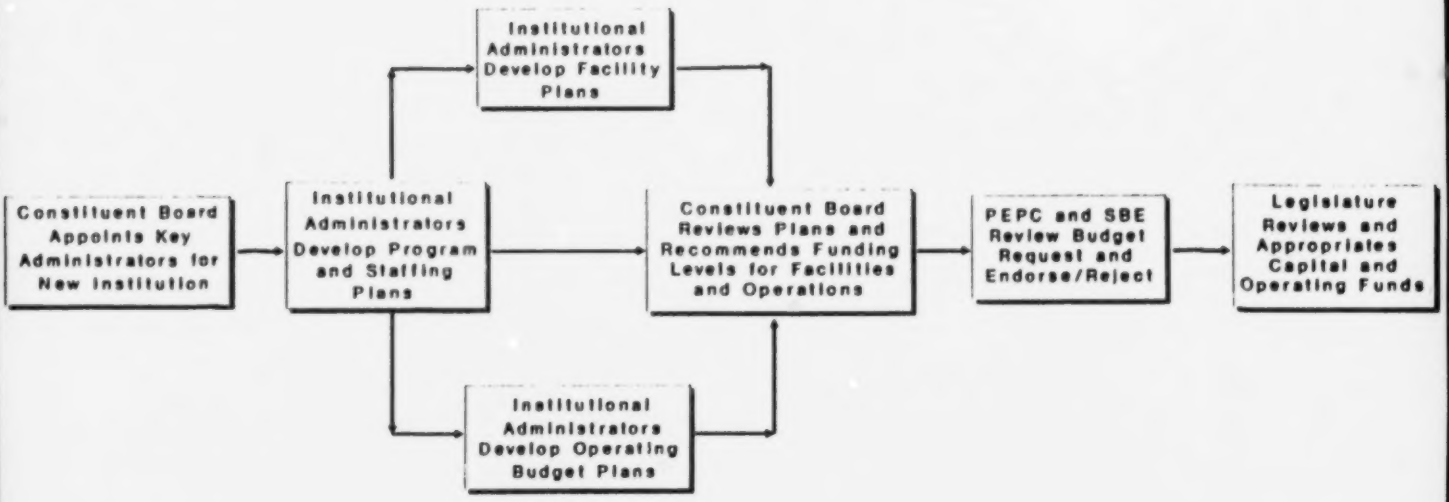

Institutional Administrators Develop Facility Plans
Constituent Board Appoints Key Administrators for New Institution
Institutional Administrators Develop Program and Staffing Plans
Constituent Board Reviews Plans and Recommends Funding Levels for Facilities and Operations
PEPC and SBE Review Budget Request and Endorse/Reject
Legislature Reviews and Appropriates Capital and Operating Funds
Institutional Administrators Develop Operating Budget Plans

EXHIBIT 6-4

FLOW CHART FOR NEW COLLEGE AND UNIVERSITY PLANNING MODEL

Phase 3: Implementation Plan for Community Colleges

Governor Appoints Local Board for New Institution
Governing Board Appoints Key Administrators for New Institution
Institutional Administrators Develop Program and Staffing Plans
Institutional Administrators Develop Facility Plans
Institutional Administrators Develop Operating Budget Plans
Constituent Board Reviews Plans and Recommends Funding Levels for Facilities and Operations
PEPC and SBE Review Budget Request and Endorse/Reject
Legislature Reviews and Appropriates Capital and Operating Funds

EXHIBIT 6-5
PLANNING ROLES AND RESPONSIBILITIES FOR ESTABLISHING A NEW STATE UNIVERSITY

PLANNING STEP	PARTICIPANTS					
	LOCAL COMMUNITY	UNIVERSITY ADMINISTRATION	BOARD OF REGENTS	PEPC	STATE BOARD OF EDUCATION	FLORIDA LEGISLATURE
General Oversight of Planning Process				XXX		
Phase 1: Threshold Analysis						
Monitor Conditions for Potential Need				XXX		
Request Special Threshold Analysis	XXX					
Notify/Consult with Affected Parties		XXX	XXX	XXX		
Perform Threshold Analysis				XXX		
Determine Probable Need				XXX		
Phase 2: Feasibility Study						
Conduct Program Needs Assessment	XXX		XXX			
Determine Facility Requirements			XXX			
Determine Operating Budget Needs			XXX			
Consult with Affected Parties	XXX	XXX	XXX			
Develop Recommendation/Request			XXX			
Review Recommendation				XXX	XXX	
Endorse/Reject Recommendation				XXX	XXX	
Review Recommendation						XXX
Enact Legislation						XXX
Phase 3: Implementation Plan						
Develop Program and Staffing Plans		XXX				
Develop Facility Plans		XXX				
Develop Operating Budget Plans		XXX				
Recommend Funding Level for Operations		XXX				
Recommend Funding Level for Facilities		XXX				
Review Implementation Plans			XXX	XXX	XXX	
Review Budget Recommendations			XXX	XXX	XXX	
Endorse/Reject Plans/Recommendations			XXX	XXX	XXX	
Appropriate Needed Funds						XXX
Commence Operations		XXX				

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EXHIBIT 6-6
PLANNING ROLES AND RESPONSIBILITIES FOR ESTABLISHING A NEW COMMUNITY COLLEGE

PLANNING STEP	PARTICIPANTS					
	LOCAL COMMUNITY	COMMUNITY COLLEGE AND ITS BOARD	STATE BOARD OF COMMUNITY COLLEGE	PEPC	STATE BOARD OF EDUCATION	FLORIDA LEGISLATURE
General Oversight of Planning Process				XXX		
Phase 1: Threshold Analysis						
Monitor Conditions for Potential Need				XXX		
Request Special Threshold Analysis	XXX					
Notify/Consult with Affected Parties		XXX	XXX	XXX		
Perform Threshold Analysis				XXX		
Determine Probable Need				XXX		
Phase 2: Feasibility Study						
Conduct Program Needs Assessment	XXX		XXX			
Determine Facility Requirements			XXX			
Determine Operating Budget Needs			XXX			
Consult with Affected Parties	XXX	XXX	XXX			
Develop Recommendation/Request			XXX			
Review Recommendation				XXX	XXX	
Endorse/Reject Recommendation				XXX	XXX	
Review Recommendation						XXX
Enact Legislation						XXX
Phase 3: Implementation Plan						
Develop Program and Staffing Plans		XXX				
Develop Facility Plans		XXX				
Develop Operating Budget Plans		XXX				
Recommend Funding Level for Operations		XXX				
Recommend Funding Level for Facilities		XXX				
Review Implementation Plans			XXX	XXX	XXX	
Review Budget Recommendations			XXX	XXX	XXX	
Endorse/Reject Plans/Recommendations			XXX	XXX	XXX	
Appropriate Needed Funds						XXX
Commence Operations		XXX				

7.0 PHASE 1 - THRESHOLD CRITERIA

7.0 PHASE 1 - THRESHOLD CRITERIA

Based upon the analyses presented in previous chapters, we recommend that the criteria used for the threshold analysis respond to four broad questions about the need for a new community college or university in a region of the state. The four questions are:

- Is the college participation rate in the community below desired levels?
- Does the community have an adequate population base to support an efficiently sized college or university?
- Does the community lack reasonable geographic access to postsecondary education?
- Are there other factors that suggest a new college or university in the community is likely to be successful?

7.1 Definition of a Region

Prior to discussing each of the above questions, however, we need to establish a definition of a region. Hence, for the purpose of determining whether a new institution should be considered for a region of the state, we recommend that a region be defined as follows:

- **Community College Region** - A county that is to be the site for the proposed new community college.
- **University Region** - A geographical area within a 60-minute driving time radius of the proposed location of a new university provided that the proposed location is at least 80 miles away from the nearest university.

7.2 College Participation Rate Criteria

In chapter 3.0, we recommended that the state establish the following enrollment rate goal:

> *By the year 2015, Florida will annually enroll students at the lower, upper, first professional and graduate levels on a 100,000 per working age population basis that equals the average of the 10 states (excluding Alaska and Nevada) with consistently strong economies.*

To achieve this college participation rate goal, Florida cannot have large pockets of low participation rates. Thus, perhaps the most important set of criteria for determining whether a new institution is needed relates to a region's current college participation rate. Simply stated, those regions that do not host a public community college or state university and that do not contribute their share to the statewide goal are prime candidates to be sites for new institutions.

Based upon the analyses presented earlier in chapter 3.0, we recommend that to be considered for:

- a separate community college, a region should have an annual lower division headcount enrollment rate that is below 8,417 per 100,000 working age population (ages 18-44); and

- a separate university, a region should have an annual headcount enrollment rate per 100,000 working age population that is below:

  - 2,410 at the upper division level
  - 1,681 at the graduate and professional levels.

7.3 Population Base Criteria

Clearly, for cost reasons, a region must have a sufficiently large population base to generate enough enrollments to establish a reasonably sized new institution. Thus, an important criterion is a minimum population base within the region.

In chapter 4.0 we recommend, based upon evidence that overhead costs per student decline significantly until a community college reaches an FTE enrollment of 4,500 and a university 7,500, that the state adopt the following institutional size goals:

1. A new community college must have the potential of achieving an FTE enrollment of 2,000 FTE students within five years after its opening date, and 4,500 within 10 years.

2. A new university must have the potential of achieving an FTE enrollment of 3,500 FTE students within five years after its opening date, and 7,500 within 10 years.

(Note: The goals are based on national definitions of FTE student; use of the Florida definitions results in goals that are 75% of those listed.)

To achieve the above enrollment goals, a region will need an adequate population base. Exhibits 7-1 and 7-2 provide estimates of the working age population bases that would be needed by a region to produce 2,000 FTE students for a new community college (exhibit 7-1) and 3,500 FTE students for a new university (exhibit 7-2). These estimates are based upon enrollment rates derived from existing state enrollment patterns.

Based on the analyses presented in exhibits 7-1 and 7-2, we recommend that:

- to be considered for a new community college, a region must have a current population (ages 18-44) of 60,000 and an expected population (18-44) of 67,000 within five years after the new institution opens; and

- to be considered for a new university, a region must have a current population (ages 18-44) of 200,000 and a projected population (ages 18-44) of 231,000 within five years after the new institution opens.

EXHIBIT 7-1

PROCESS FOR ESTIMATING NEEDED REGIONAL
WORKING AGE POPULATION BASE FOR OPENING A
NEW COMMUNITY COLLEGE WITH 2,000 FTE ENROLLMENT

Flow of Potential Students	Current	Proposed
Potential Pool of Students in Region: Working Age Population (Ages 18-44)	87,400	66,800
↓	↓	↓
Overall Higher Education Participation Rate	9.78%	12.80%
↓	↓	↓
Projected Higher Education Headcount Enrollment from Region	8,549	8,549
↓	↓	↓
Community College System Market Share	48.80%	48.80%
↓	↓	↓
Projected Community College System Enrollment from Region	4,172	4,172
↓	↓	↓
New Community College Market Share of System's Regional Enrollment	85.00%	85.00%
↓	↓	↓
Projected New Community College Enrollment for Own Region	3,546	3,546
↓	↓	↓
Ratio of Total Enrollment to Enrollment form Region	106.39%	106.39%
↓	↓	↓
Projected New College Headcount Enrollment	3,773	3,773
↓	↓	↓
Headcount to FTE Student Conversion Rate	53.00%	53.00%
↓	↓	↓
Projected New College FTE Student Enrollment	2,000	2,000

Note: Factors based on existing enrollment patterns for Florida's community colleges

EXHIBIT 7-2

PROCESS FOR ESTIMATING NEEDED REGIONAL
WORKING AGE POPULATION BASE FOR OPENING A
NEW STATE UNIVERSITY WITH 3,500 FTE ENROLLMENT

Flow of Potential Students	Current	Proposed
Potential Pool of Students in Region: Working Age Population (Ages 18-44)	302,423	231,070
Overall Higher Education Participation Rate	9.78%	12.80%
Projected Higher Education Headcount Enrollment from Region	29,577	29,577
State University System Market Share	28.40%	28.40%
Projected State University System Enrollment from Region	8,400	8,400
New State University Market Share of System's Regional Enrollment	50.00%	50.00%
Projected New State University Enrollment for Own Region	4,200	4,200
Ratio of Total Enrollment to Enrollment form Region	122.55%	122.55%
Projected New University Headcount Enrollment	5,147	5,147
Headcount to FTE Student Conversion Rate	68.00%	68.00%
Projected New University FTE Student Enrollment	3,500	3,500

Note: Factors based on existing enrollment patterns for Florida's state universities

7.4 Other Extenuating Factors

Despite the desirability of using numerical criteria to judge the need for new institutions, less quantifiable information will need to be considered in some situations. Such other extenuating factors might be used to interpret scores on existing measures or to bring additional facts to the analysis.

One potential piece of additional evidence to be considered is the history of success in the community for supporting postsecondary education programs. In many cases, a community being considered to serve as the site of a new institution already will be hosting another type of delivery site, e.g., a branch campus. A community that historically has produced high enrollments for a branch operation is likely to be even more successful in supporting an institution with expanded program offerings.

Depending on the local situation, other types of extenuating circumstances may be appropriate to consider.

7.5 Summary Judgments About Need

A summary of the recommended criteria are presented in exhibit 7-3. In making its summary judgement about whether to recommend that probable need exists to merit a feasibility study, PEPC will need to take all criteria into account simultaneously. This process is considerably more complex than simply adding all the scores together. PEPC may choose to place a greater weight on some measures, e.g., low participation rates, than on others, e.g., geographic access. Further, strong evidence on some measures may be sufficient to offset marginal results on other variables. In the end, Commission members will be forced to make a subjective judgement, although that decision will be based upon the analysis of multiple quantitative measures as presented in this chapter.

EXHIBIT 7-3
PHASE 1 CRITERIA FOR DETERMINING THE POTENTIAL NEED FOR A NEW INSTITUTION IN A REGION*

PHASE 1 CRITERIA	INSTITUTIONAL TYPE	
	COMMUNITY COLLEGE	STATE UNIVERSITY
Substandard College Participation Rate		
Regional College Participation Rate At Lower Level Is Less Than ____ Per 100,000 Working Age Population (W.A.P.)	8,417	
Regional College Participation Rate At Upper Level Is Less Than ____ Per 100,000 W.A.P.	NA	2,410
Regional College Participation Rate At Graduate Level Is Less Than ____ Per 100,000 W.A.P.	NA	1,681
Adequate Population Base		
Current Regional Population Aged 18–44 Is Greater Than ____	60,000	200,000
Projected Population Aged 18–44 Five Years After Institution's Opening Date Is Greater Than ___	67,000	231,000
Lack of Geographic Access		
Location of Institution Is More Than ___ Miles From Main Campus of Similar Entity	30	80
Location of Institution Is More Than ___ Minutes From Main Campus of Similar Entity	45	90
Other Extenuating Circumstances		
Predecessor Delivery Systems In The Community Have Been Successful Appropriate Programs Have Not Been Available In The Community		

*Region for a state university is defined as the geographical area within a 1-hour driving radius around the proposed location of a new institution. Region for a community college is defined as the home county of the proposed location of a new institution.

8.0 PHASE 2 - GUIDELINES

8.0 PHASE 2 - GUIDELINES

The phase 2 feasibility studies will be performed by the appropriate constituent board under a broad set of guidelines developed by PEPC. In contrast to the quantitatively-based criteria applied during phase 1, the feasibility study guidelines focus more on broad planning concerns and generally allow much greater latitude for demonstrating how the proposed institution will comply.

Feasibility studies are to be designed and conducted to address the following four major categories of concern:

- **demonstration of need** -- the feasibility study will document both the nature and the extent of need for postsecondary education services in the community

- **impact on other delivery systems** -- the feasibility study will describe how the proposed institution will coordinate its efforts with other institutions that may already offer similar or related programs in the community

- **cost-effectiveness of the proposed delivery model** -- the feasibility study will provide details of plans for how the new institution will be operated as economically as other delivery alternatives

- **other special and policy considerations** -- the feasibility study will provide an opportunity to demonstrate that the proposed institution will reinforce various state policies for postsecondary education and to describe how specific issues, which were identified during the threshold analysis, will be resolved.

In addressing these issues, the constituent board will describe how the proposed college or university is expected to develop as a vital, efficient and effective institution in meeting the postsecondary education needs of a particular region of the state.

8.1 Demonstration of Need

The first major component of the feasibility study will be the description of an enrollment plan that will show how the proposed college or university is projected to meet or exceed the minimum FTE enrollment size criteria described above in section 4:

	College	University
After five years	1,500 FTE[1]	2,625 FTE
After ten years	3,375 FTE	5,625 FTE

[1]Florida's definition of FTE is 40 student credit hours for undergraduate, 32 for graduate.

This component of the feasibility study should include analyses of the size and the expected participation rates of the various potential populations to be served, e.g., recent high school graduates, area employees seeking advanced degrees, etc., in describing the composition of the planned student body.

In addition to providing educational opportunities for greater numbers of Florida residents, a priority for the state's systems of higher education is to better serve those segments of the population that have not previously participated at desired levels. The feasibility study, therefore, should describe how the institution will serve various sub-populations, such as minorities and low income citizens, that historically have been underserved by Florida's colleges and universities. The impact of potential campus sites, transportation patterns, and proposed recruitment and admissions programs on minority participation should be addressed.

The feasibility study also should begin to describe how the programs of the proposed institution will specifically address unmet community instructional needs. To the extent that the community has unique economic characteristics, the proposed program mix should respond to these special opportunities as well as serve more broad-based community needs.

As a final form of demonstrating the need for the potential college or university, the feasibility study should include evidence of broad community support. This evidence can be exhibited in many different forms, ranging from official resolutions of governmental bodies, to results of scientific surveys of area residents, to pledges of financial support to obtain land for the proposed campus. The intent of this guideline is to provide assurances that the overall community plans to work to develop the potential institution rather than the institution serving as a source of divisiveness within the community.

8.2 Impact on Other Delivery Systems

Assuming that the proposed college or university will supplant a branch or center that currently is operated by a sister institution, the feasibility study should address transition plans for moving to separate institution status. The interests of both the community and the current provider should be protected to the extent possible. The transition plan should include provisions for student transfer of credits, continuity of employment relationships for on-site personnel, continuity of non-instructional services provided to the community, etc. The transition plan component of the feasibility study will be especially critical in those situations where the current provider has deployed a significant portion of its overall resources in the community that now is to be served by the proposed institution. The current provider shall be provided opportunity to review and comment on the transition plans.

In those situations where the proposed institution is to be a state university, the feasibility study should address plans for integration of programs with the local community college. If the university plans to enroll lower division students, the feasibility study should describe the planned size of the lower division and any special procedures for selecting students at this level. The local community college shall be provided an opportunity to review and comment on the university's plans for lower division offerings.

If the proposed community already serves as the host for an independent college or university campus or has been a regular site for off-campus

programming, the feasibility study also should assess the likely impact of the proposed institution on the ongoing operations of the independent institution.

8.3 Cost-Effectiveness of the Proposed Delivery Model

Any new community college or state university, especially in its early years, is expected to emphasize the offering of low cost, high demand programs. Accordingly, the feasibility study should include a preliminary description of the planned program offerings. It is expected that the curriculum will be comprised primarily of those programs that will serve large numbers of students with minimal needs for costly, specialized resources.

The feasibility study also should include a preliminary operating budget estimate. A critical concern will be to ensure that the potential institution, after its initial years of operation, can operate at least as efficiently as the typical institution in the system that offers similar programs.

Preliminary facility plans also should be included in the feasibility study. Information about possible sites and their potential costs should be listed. Information should describe the adequacy of the site size for the planned program along with site acquisition and development costs. Also, the possibility of joint-use facilities should be analyzed.

Finally, plans for the proposed institution should encompass the full range of educational delivery alternatives. The feasibility study should include consideration of various lower cost delivery options, including those made possible through new telecommunications technologies.

8.4 Other Special and Policy Considerations

In the final component of the feasibility study, the constituent board should describe how the potential institution might comply with current state policies for higher education, and in particular with the Board's own master plan and the PEPC Master Plan. Also, any unique concerns about the possibility of a new institution in the proposed community, which were identified during the threshold analysis phase, should be addressed.

Exhibit 8-1 provides a summary listing of the guidelines that are to be addressed in the feasibility study for a new college or university.

717A/REPORT

EXHIBIT 8-1
PHASE 2 - GUIDELINES

DEMONSTRATION OF NEED

Proposed Entity Meets Minimum Size Criterion
Proposed Entity Provides Access For Underserved:
- Minorities
- Low Income

Proposed Entity Has Community Support

IMPACT ON OTHER DELIVERY SYSTEMS

Program Has Minimal Adverse Effect on Area Community Colleges
Program Has Minimal Adverse Effect on Area State Universities
Program Has Minimal Adverse Effect on Area Independent Colleges & Universities

COST-EFFECTIVENESS OF PROPOSED DELIVERY MODEL

Program Mix Emphasizes High Demand/Low Cost Programs
Operating Costs Are Comparable to System Average
Joint Use Facilities Are Employed to Fullest Extent Possible
Suitable Site is Available at Reasonable Cost
Educational Needs Can Not be Met With Lower Cost Delivery Model

OTHER SPECIAL CONSIDERATIONS

Proposal Complies With PEPC Master Plan
Proposal Reinforces "Two + Two" Concept
Other Special Factors Are Considered

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APPENDIX B

1990 Legislative Proviso

1990 LEGISLATIVE PROVISO

From funds provided in Specific Appropriation Act 634B, Chapter 90-209, the Postsecondary Education Planning Commission, with the assistance and involvement of the Board of Regents and the State Board of Community Colleges, shall develop criteria for the establishment of new institutions within the state university and community college systems. Such criteria shall include projected enrollment, the capacity of existing public and independent institutions, alternatives to addressing any identified demand, and impact on other institutions both adjacent and statewide.